Department of Public Works

Ramona Carter, P.E., MPA
Director

THE COUNTY OF
POWHATAN
VIRGINIA

3834 Old Buckingham Road, Suite A
Powhatan, Virginia 23139

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January 19th, 2016

Ms. Joy D. Abel
VPDES Permit Writer
Department of Environmental Quality
Piedmont Regional Office
4949-A Cox Road
Glen Allen, Virginia 23060

RE: Fighting Creek Permit Reissuance
VPDES Permit No. VA0089206

Dear Ms. Abel:

Please find enclosed completed originals for the permit reissuance of Fighting Creek Wastewater Treatment Plant in Powhatan County, Virginia. An electronic pdf file will also be sent to your e-mail at joy.abel@deq.virginia.gov. Please find the following forms enclosed;

Public Notice of Billing Information
VPDES Permit Application Addendum
NPDES Form 2A
Attachments B.2 and B.3
Water Quality Criteria Monitoring
4.5 years of historic flow and monitoring data
VPDES Sewage Sludge Permit Application
Attachment A Sludge Permit Application
Attachment B Required Sludge Monitoring Data
Attachment C Land Application Agreements and Data

If you require additional information please contact me at the telephone number and address indicated above. I look forward to hearing from you regarding the status of Powhatan County's Fighting Creek Wastewater Treatment Plant Permit.

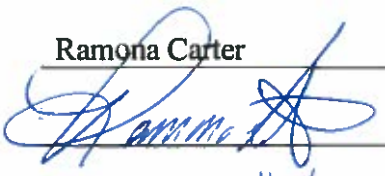
Sincerely,

Ramona Carter, P.E., MPA
Director of Public Works
Powhatan County
3834 Old Buckingham Rd
Powhatan VA, 23139

Cc: File

PUBLIC NOTICE BILLING INFORMATION

I hereby authorize the Department of Environmental Quality to have the cost of publishing a public notice billed to the Agent/Department shown below. The public notice will be published once a week for two consecutive weeks in Powhatan Today in accordance with 9 VAC 25-31-290.C.2.

Agent/Department to be billed:	Public Works Department
Owner:	County of Powhatan
Agent/Department Address:	3834 Old Buckingham Road
	Powhatan, VA
	23139
Agent's Telephone No.:	(804) 598-5764
Printed Name:	Ramona Carter
Authorizing Agent – Signature:	
Date:	JANUARY 15th /2016

VPDES Permit No. VA0089206
Facility Name: Fighting Creek Wastewater Treatment Plant

VPDES Permit Application Addendum

1. **Entity to whom the permit is to be issued:** County of Powhatan

Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.

2. **Is this facility located within city or town boundaries?** Yes ☒ No ☐

3. **Provide the tax map parcel number for the land where the discharge is located.** 38-46

4. **For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities?** 0.1 acres

5. **What is the design average effluent flow of this facility?** 0.100 MGD
   For industrial facilities, provide the max. 30-day average production level, include units:

   In addition to the design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels? Yes ☐ No ☒
   If "Yes", please identify the other flow tiers (in MGD) or production levels:

Please consider the following questions for both the flow tiers and the production levels (if applicable): Do you plan to expand operations during the next five years? Is your facility's design flow considerably greater than your current flow?

6. **Nature of operations generating wastewater:**

10 % of flow from domestic connections/sources

Number of private residences to be served by the treatment works: 63

90 % of flow from non-domestic connections/sources

7. **Mode of discharge:** ☐ Continuous ☒ Intermittent ☐ Seasonal
   Describe frequency and duration of intermittent or seasonal discharges:
   System is a sequenced batch reactor which discharges 4-6 times in a 24 hour period

8. **Identify the characteristics of the receiving stream at the point just above the facility's discharge point:**

   ___ Permanent stream, never dry
   X Intermittent stream, usually flowing, sometimes dry
   ___ Ephemeral stream, wet-weather flow, often dry
   ___ Effluent-dependent stream, usually or always dry without effluent flow
   ___ Lake or pond at or below the discharge point
   ___ Other:

9. **Approval Date(s):**
   O & M Manual May 7th, 2012 **Sludge/Solids Management Plan** May 7th, 2012

   Have there been any changes in your operations or procedures since the above approval dates? Yes ☒ No ☐

   Additional of hot water to EQ basin to prevent freeze-up during ambient temperatures below 32F.

FACILITY NAME AND PERMIT NUMBER:
VA0089206

Form Approved 1/14/99
OMB Number 2040-0086

FORM 2A NPDES

NPDES FORM 2A APPLICATION OVERVIEW

APPLICATION OVERVIEW

Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some applicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.

BASIC APPLICATION INFORMATION:

A. **Basic Application Information for all Applicants.** All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.

B. **Additional Application Information for Applicants with a Design Flow ≥ 0.1 mgd.** All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.

C. **Certification.** All applicants must complete Part C (Certification).

SUPPLEMENTAL APPLICATION INFORMATION:

D. **Expanded Effluent Testing Data.** A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):

1. Has a design flow rate greater than or equal to 1 mgd,
2. Is required to have a pretreatment program (or has one in place), or
3. Is otherwise required by the permitting authority to provide the information.

E. **Toxicity Testing Data.** A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):

1. Has a design flow rate greater than or equal to 1 mgd,
2. Is required to have a pretreatment program (or has one in place), or
3. Is otherwise required by the permitting authority to submit results of toxicity testing.

F. **Industrial User Discharges and RCRA/CERCLA Wastes.** A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:

1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
2. Any other industrial user that:
   a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions); or
   b. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
   c. Is designated as an SIU by the control authority.

G. **Combined Sewer Systems.** A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)

BASIC APPLICATION INFORMATION

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application Information packet.

A.1. Facility Information.

Facility name: Fighting Creek Wastewater Treatment Plant

Mailing Address: 3834 Old Buckingham Road Suite A

Contact person: Ramona Carter, P.E., MPA

Title: Director of Public Works

Telephone number: (804) 598-5764

Facility Address (not P.O. Box): 3900 Old Plantation Road, Powhatan, VA 23139

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant name: N/A

Mailing Address: N/A

Contact person: N/A

Title: N/A

Telephone number:

Is the applicant the owner or operator (or both) of the treatment works?

✓ owner ✓ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

✓ facility _____ applicant

A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES	VA0089206	PSD	N/A
UIC	N/A	Other	N/A
RCRA	N/A	Other	N/A

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
4 Schools	3000	Separate	Municipal
Residential Homes	160	Separate	Municipal
Business	420	Separate	Municipal
Total population served	3580		

A.5. Indian Country.

a. Is the treatment works located in Indian Country?

_____ Yes ✓ No

b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

_____ Yes ✓ No

A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

a. Design flow rate 0.100 mgd

	Two Years Ago	Last Year	This Year	
b. Annual average daily flow rate	.031	.027	.030	mgd
c. Maximum daily flow rate	.082	.098	.121	mgd

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

✓ Separate sanitary sewer	100 %
_____ Combined storm and sanitary sewer	_____ %

A.8. Discharges and Other Disposal Methods.

a. Does the treatment works discharge effluent to waters of the U.S.? ✓ Yes _____ No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent	1
ii. Discharges of untreated or partially treated effluent	0
iii. Combined sewer overflow points	0
iv. Constructed emergency overflows (prior to the headworks)	0
v. Other N/A	0

b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.? _____ Yes ✓ No

If yes, provide the following for each surface impoundment:

Location: N/A

Annual average daily volume discharged to surface impoundment(s) N/A mgd

Is discharge _____ continuous or _____ intermittent?

c. Does the treatment works land-apply treated wastewater? _____ Yes ✓ No

If yes, provide the following for each land application site:

Location: N/A

Number of acres: N/A

Annual average daily volume applied to site: N/A Mgd

Is land application _____ continuous or _____ intermittent?

d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works? _____ Yes ✓ No

If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

N/A

If transport is by a party other than the applicant, provide:

Transporter name: N/A

Mailing Address: N/A

Contact person: N/A

Title: N/A

Telephone number: (000) 000-0000

For each treatment works that receives this discharge, provide the following:

Name: N/A

Mailing Address: N/A

Contact person: N/A

Title: N/A

Telephone number: (000) 000-0000

If known, provide the NPDES permit number of the treatment works that receives this discharge. N/A

Provide the average daily flow rate from the treatment works into the receiving facility. N/A mgd

e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8.a through A.8.d above (e.g., underground percolation, well injection)? _____ Yes ✓ No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

N/A

Annual daily volume disposed of by this method: N/A

Is disposal through this method _____ continuous or _____ intermittent?

FACILITY NAME AND PERMIT NUMBER:
VA0089206

Form Approved 1/14/99
OMB Number 2040-0086

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 once for each outfall (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. If you answered "no" to question A.8.a, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

a. Outfall number 001

b. Location 3900 Old Plantation Road (City or town, if applicable) 23139 (Zip Code)
Powhatan (County) Virginia (State)
37 deg 32' 22.79" N (Latitude) 77 deg 55' 49.89" W (Longitude)

c. Distance from shore (if applicable) N/A ft.

d. Depth below surface (if applicable) N/A ft.

e. Average daily flow rate .030 mgd

f. Does this outfall have either an intermittent or a periodic discharge? ____ Yes ✓ No (go to A.9.g.)

If yes, provide the following information:

Number of times per year discharge occurs: N/A

Average duration of each discharge: N/A

Average flow per discharge: N/A mgd

Months in which discharge occurs: N/A

g. Is outfall equipped with a diffuser? ____ Yes ✓ No

A.10. Description of Receiving Waters.

a. Name of receiving water Fighting Creek

b. Name of watershed (if known) Mid-Atlantic/Lower Chesapeake/James

United States Soil Conservation Service 14-digit watershed code (if known): unknown

c. Name of State Management/River Basin (if known): Appomattox

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): 02080207

d. Critical low flow of receiving stream (if applicable):
acute N/A cfs chronic N/A cfs

e. Total hardness of receiving stream at critical low flow (if applicable): N/A mg/l of $CaCO_3$

FACILITY NAME AND PERMIT NUMBER:
VA0089206

Form Approved 1/14/99
OMB Number 2040-0086

A.11. Description of Treatment.

a. What levels of treatment are provided? Check all that apply.

_____ Primary ✓ Secondary

_____ Advanced _____ Other. Describe: _____

b. Indicate the following removal rates (as applicable):

Design BOD_5 removal or Design $CBOD_5$ removal _____ %

Design SS removal _____ %

Design P removal _____ %

Design N removal _____ %

Other _____ _____ %

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

U/V

If disinfection is by chlorination, is dechlorination used for this outfall? _____ Yes ✓ No

d. Does the treatment plant have post aeration? ✓ Yes _____ No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 001

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	7.7	s.u.			
pH (Maximum)	8.7	s.u.			
Flow Rate	0.121	MGD	.033	MGD	1645
Temperature (Winter)	NA	C			
Temperature (Summer)	NA	C			

* For pH please report a minimum and a maximum daily value

POLLUTANT		MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
		Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.								
BIOCHEMICAL OXYGEN	BOD-5	NA	NA	NA	NA	NA	NA	NA
DEMAND (Report one)	CBOD-5	15.2	mg/L	2.98	mg/L	233	SM22 5210B	
FECAL COLIFORM		2420	N/100mL	88.6	N/100mL	428	E-Coli Colilert	
TOTAL SUSPENDED SOLIDS (TSS)		56	mg/L	6.44	mg/L	233	SM 2540D	

END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

BASIC APPLICATION INFORMATION

PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).

B.1. Inflow and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.

1000 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

B.2. Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)

a. The area surrounding the treatment plant, including all unit processes.

b. The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.

c. Each well where wastewater from the treatment plant is injected underground.

d. Wells, springs, other surface water bodies, and drinking water wells that are: 1) within 1/4 mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.

e. Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.

f. If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g. chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

B.4. Operation/Maintenance Performed by Contractor(s).

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? ____Yes ✓ No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: N/A

Mailing Address: N/A

Telephone Number: (000) 000-0000

Responsibilities of Contractor: N/A

B.5. Scheduled Improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

001

b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

____Yes ✓ No

c If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

Replace influent pumps to prevent backup of headworks

d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

Implementation Stage	Schedule MM / DD / YYYY	Actual Completion MM / DD / YYYY
– Begin construction	09 / ___ / 2016	___ / ___ / ____
– End construction	___ / ___ / ____	___ / ___ / ____
– Begin discharge	___ / ___ / ____	___ / ___ / ____
– Attain operational level	___ / ___ / ____	___ / ___ / ____

e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? ___Yes ✓ No

Describe briefly: N/A

B.6. EFFLUENT TESTING DATA (GREATER THAN 0.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall Number: N/A

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.							
AMMONIA (as N)							
CHLORINE (TOTAL RESIDUAL, TRC)							
DISSOLVED OXYGEN							
TOTAL KJELDAHL NITROGEN (TKN)							
NITRATE PLUS NITRITE NITROGEN							
OIL and GREASE							
PHOSPHORUS (Total)							
TOTAL DISSOLVED SOLIDS (TDS)							
OTHER							

END OF PART B.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

BASIC APPLICATION INFORMATION

PART C. CERTIFICATION

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

✓ Basic Application Information packet

Supplemental Application Information packet:

_____ Part D (Expanded Effluent Testing Data)

_____ Part E (Toxicity Testing: Biomonitoring Data)

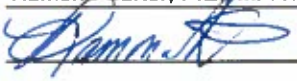
_____ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

_____ Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title: Ramona Carter, P.E., MPA / Director of Public Works

Signature: 

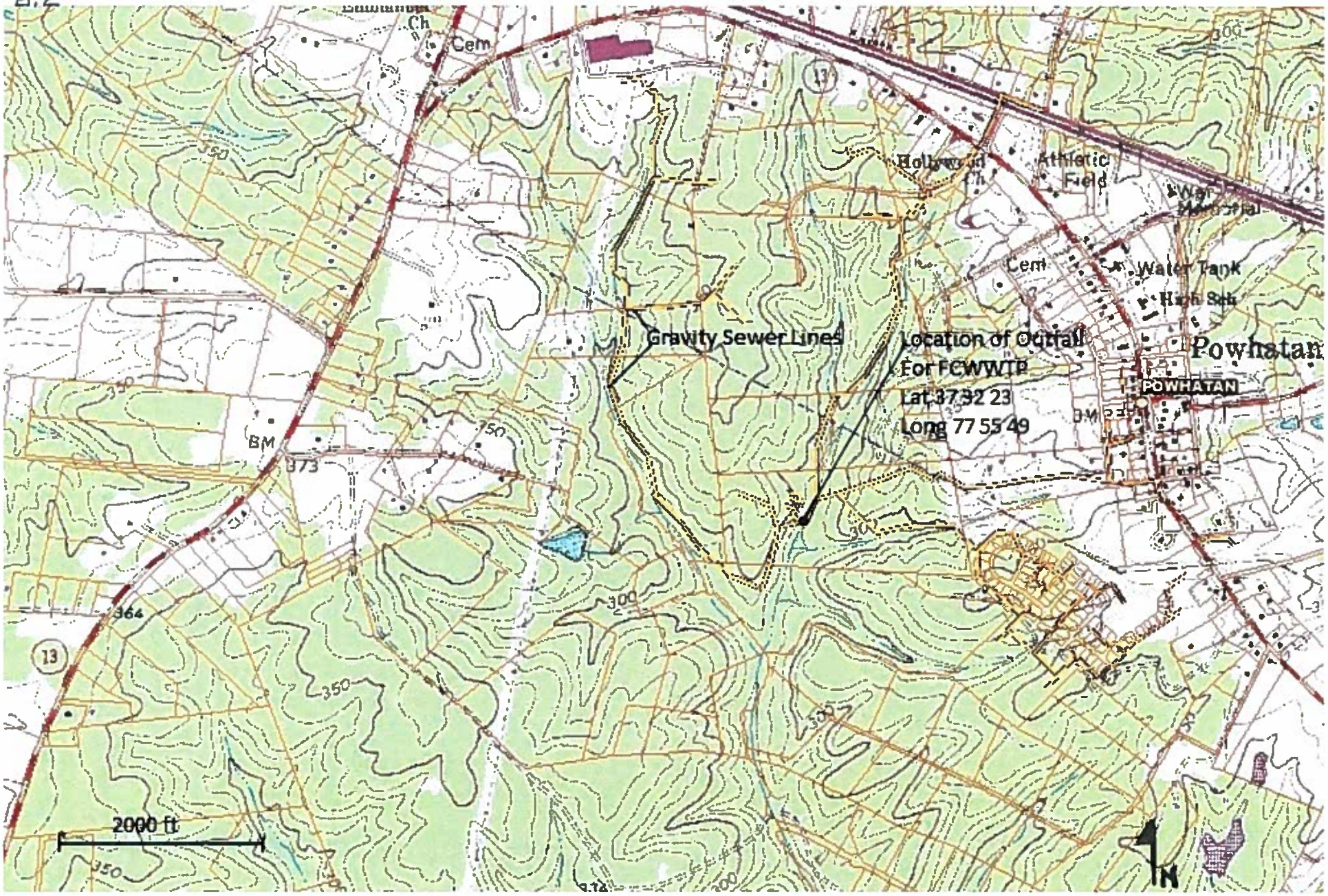
Telephone number: (804) 598-5764

Date signed: JANUARY 15th /2016

Upon request of the permitting authority, you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

B.2



POWHATAN QUADRANGLE

o37077e8

B.2


Powhatan County Sheriff Animal
Old Plantation Rd
SLUDGE HOLDING
SBR #2
SBR #1
Google

1" = 50'

8.2.d

Powhatan County Virginia

Legend

- Places
- Parcels
- Approximate Well Sites

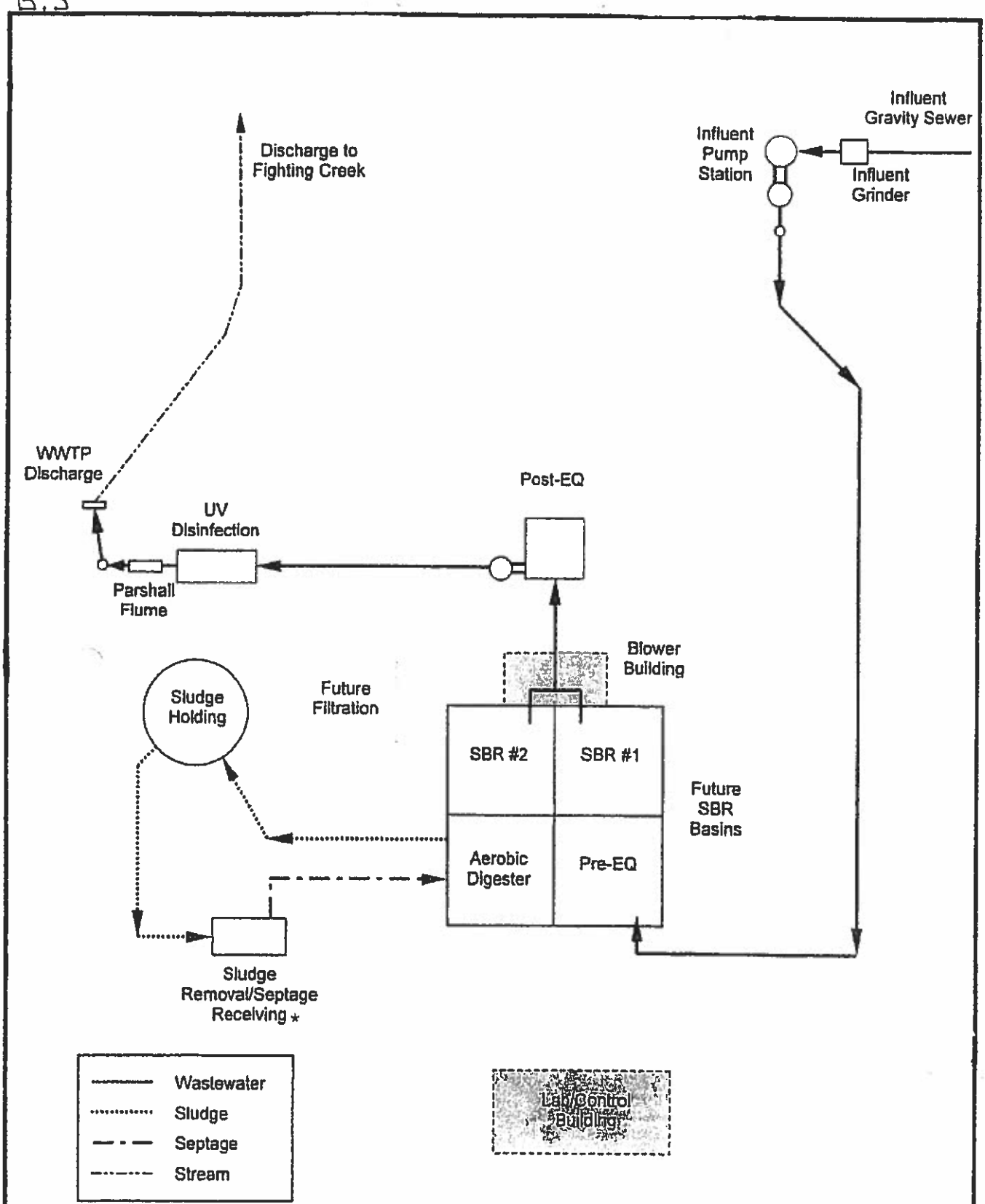
Feet
0 200 400 800 800

Title: Surrounding Well Sites

Date: 1/31/2011

DISCLAIMER: Maps and data are for display purposes only and are not intended for legal uses. No warranty, expressed or implied, is made by the County of Powhatan as to the accuracy of the data.

B.3



Draper Aden Associates CONSULTING ENGINEERS Blacksburg ◆ Richmond	**Flow Diagram** Powhatan Regional Wastewater Treatment Plant	No Scale Figure 1

ATTACHMENT A
DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY CRITERIA MONITORING

Effective January 1, 2012, all analyses shall be in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories.

A listing of Virginia Environmental Laboratory Accreditation Program (VELAP) certified and/or accredited laboratories can be found at the following website: http://www.dgs.state.va.us/DivisionofConsolidatedLaboratoryServices/Services/EnvironmentalLaboratoryCertification/tabid/1059/Default.aspx

Please be advised that additional water quality analyses may be necessary and/or required for permitting purposes.

CASRN	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL[1]	REPORTING RESULTS[2]	SAMPLE TYPE[3]	SAMPLE FREQUENCY
METALS						
7440-36-0	Antimony, dissolved	(4)	1.4	<1.0 ug/L	G	1/5 YR
7440-38-2	Arsenic, dissolved	(4)	1.0	2.30 ug/L	G	1/5 YR
7440-43-9	Cadmium, dissolved	(4)	0.3	<0.0003mg/L	G	1/5 YR
16065-83-1	Chromium III, dissolved [7]	(4)	3.6	<0.003 ug/L	G	1/5 YR
18540-29-9	Chromium VI, dissolved [7]	(4)	1.6	<0.005ug/L	G	1/5 YR
7440-50-8	Copper, dissolved	(4)	0.50	10.3 ug/L	G	1/5 YR
7439-92-1	Lead, dissolved	(4)	0.50	<0.500ug/L	G	1/5 YR
7439-97-6	Mercury, dissolved	(4)	1.0	<0.0002 mg/L	G	1/5 YR
7440-02-0	Nickel, dissolved	(4)	0.94	3.83 ug/L	G	1/5 YR
7782-49-2	Selenium, Total Recoverable	(4)	2.0	<1.00 ug/L	G	1/5 YR (FW)
7440-22-4	Silver, dissolved	(4)	0.20	<0.250ug/L	G	1/5 YR
7440-28-0	Thallium, dissolved	(4)	(5)	<1.00ug/L	G	1/5 YR
7440-66-6	Zinc, dissolved	(4)	3.6	50.2 ug/L	G	1/5 YR
PESTICIDES/PCBs						
309-00-2	Aldrin	608/625	0.05	<0.052ug/L	G	1/5 YR
57-74-9	Chlordane	608/625	0.2	<0.208ug/L	G	1/5 YR
2921-88-2	Chlorpyrifos (synonym = Dursban)	622	(5)	<0.2ug/L	G	1/5 YR
72-54-8	DDD	608/625	0.1	<0.052ug/L	G	1/5 YR
72-55-9	DDE	608/625	0.1	<0.052ug/L	G	1/5 YR
50-29-3	DDT	608/625	0.1	<0.052ug/L	G	1/5 YR

CASRN	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL[1]	REPORTING RESULTS[2]	SAMPLE TYPE[3]	SAMPLE FREQUENCY
8065-48-3	Demeton (synonym = Dementon-O,S)	622	(5)	<1.0ug/L	G	1/5 YR
333-41-5	Diazinon	622	(5)	<1.0ug/L	G	1/5 YR
60-57-1	Dieldrin	608/625	0.1	<0.052ug/L	G	1/5 YR
959-98-8	Alpha-Endosulfan (synonym = Endosulfan I)	608/625	0.1	<0.052ug/L	G	1/5 YR
33213-65-9	Beta-Endosulfan (synonym = Endosulfan II)	608625	0.1	<0.052ug/L	G	1/5 YR
1031-07-8	Endosulfan Sulfate	608/625	0.1	<0.052ug/L	G	1/5 YR
72-20-8	Endrin	608/625	0.1	<0.052ug/L	G	1/5 YR
7421-93-4	Endrin Aldehyde	608/625	(5)	<0.052ug/L	G	1/5 YR
86-50-0	Guthion (synonym = Azinphos Methyl)	622	(5)	<1.0ug/L	G	1/5 YR
76-44-8	Heptachlor	608/625	0.05	<0.052ug/L	G	1/5 YR
1024-57-3	Heptachlor Epoxide	608/625	(5)	<0.052ug/L	G	1/5 YR
319-84-6	Hexachlorocyclohexane Alpha-BHC	608/625	(5)	<0.052ug/L	G	1/5 YR
319-85-7	Hexachlorocyclohexane Beta-BHC	608/625	(5)	<0.052ug/L	G	1/5 YR
58-89-9	Hexachlorocyclohexane Gamma-BHC (syn. = Lindane)	608/625	(5)	<0.052ug/L	G	1/5 YR
143-50-0	Kepone	8081 Extended/ 8270C/8270D	(5)	<10.3ug/L	G	1/5 YR
121-75-5	Malathion	614	(5)	<1.0ug/L	G	1/5 YR
72-43-5	Methoxychlor	608.2	(5)	<0.052ug/L	G	1/5 YR
2385-85-5	Mirex	8081 Extended/ 8270C/8270D	(5)	<0.052ug/L	G	1/5 YR
56-38-2	Parathion (synonym = Parathion Ethyl)	614	(5)	<1.0ug/L	G	1/5 YR
1336-36-3	PCB, total	608/625	7.0	<0.5ug/L	G	1/5 YR
8001-35-2	Toxaphene	608/625	5.0	<1.04ug/L	G	1/5 YR
	BASE NEUTRAL EXTRACTABLES					
83-32-9	Acenaphthene	610/625	10.0	<10.3ug/L	G	1/5 YR
120-12-7	Anthracene	610/625	10.0	<10.3ug/L	G	1/5 YR
92-87-5	Benzidine	625	(5)	<51.5ug/L	G	1/5 YR
56-55-3	Benzo (a) anthracene	610/625	10.0	<10.3ug/L	G	1/5 YR
205-99-2	Benzo (b) fluoranthene	610/625	10.0	<10.3ug/L	G	1/5 YR
207-08-9	Benzo (k) fluoranthene	610/625	10.0	<10.3ug/L	G	1/5 YR
50-32-8	Benzo (a) pyrene	610/625	10.0	<10.3ug/L	G	1/5 YR
111-44-4	Bis 2-Chloroethyl Ether	625	(5)	<10.3ug/L	G	1/5 YR

CASRN	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL[1]	REPORTING RESULTS[2]	SAMPLE TYPE[3]	SAMPLE FREQUENCY
108-60-1	Bis 2-Chloroisopropyl Ether	625	(5)	<10.3ug/L	G	1/5 YR
117-81-7	Bis 2-Ethylhexyl Phthalate (syn. = Di-2-Ethylhexyl Phthalate)	625	10.0	<10.3ug/L	G	1/5 YR
85-68-7	Butyl benzyl phthalate	625	10.0	<10.3ug/L	G	1/5 YR
91-58-7	2-Chloronaphthalene	625	(5)	<10.3ug/L	G	1/5 YR
218-01-9	Chrysene	610/625	10.0	<10.3ug/L	G	1/5 YR
53-70-3	Dibenzo (a,h) anthracene	610/625	20.0	<10.3ug/L	G	1/5 YR
95-50-1	1,2-Dichlorobenzene	602/624	10.0	<5ug/L	G	1/5 YR
541-73-1	1,3-Dichlorobenzene	602/624	10.0	<5ug/L	G	1/5 YR
106-46-7	1,4-Dichlorobenzene	602/624	10.0	<5ug/L	G	1/5 YR
91-94-1	3,3-Dichlorobenzidine	625	(5)	<10.3ug/L	G	1/5 YR
84-66-2	Diethyl phthalate	625	10.0	<10.3ug/L	G	1/5 YR
131-11-3	Dimethyl phthalate	625	(5)	<10.3ug/L	G	1/5 YR
84-74-2	Di-n-butyl Phthalate (synonym = Dibutyl Phthalate)	625	10.0	<10.3ug/L	G	1/5 YR
121-14-2	2,4-Dinitrotoluene	625	10.0	<10.3ug/L	G	1/5 YR
122-66-7	1,2-Diphenylhydrazine	625/ 8270C/8270D	(5)	<10.3ug/L	G	1/5 YR
206-44-0	Fluoranthene	610/625	10.0	<10.3ug/L	G	1/5 YR
86-73-7	Fluorene	610/625	10.0	<10.3ug/L	G	1/5 YR
118-74-1	Hexachlorobenzene	625	(5)	<2.58ug/L	G	1/5 YR
87-68-3	Hexachlorobutadiene	625	(5)	<10.3ug/L	G	1/5 YR
77-47-4	Hexachlorocyclopentadiene	625	(5)	<10.3ug/L	G	1/5 YR
67-72-1	Hexachloroethane	625	(5)	<10.3ug/L	G	1/5 YR
193-39-5	Indeno(1,2,3-cd)pyrene	610/625	20.0	<10.3ug/L	G	1/5 YR
78-59-1	Isophorone	625	10.0	<10.3ug/L	G	1/5 YR
98-95-3	Nitrobenzene	625	10.0	<10.3ug/L	G	1/5 YR
62-75-9	N-Nitrosodimethylamine	625	(5)	<10.3ug/L	G	1/5 YR
621-64-7	N-Nitrosodi-n-propylamine	625	(5)	<10.3ug/L	G	1/5 YR
86-30-6	N-Nitrosodiphenylamine	625	(5)	<10.3ug/L	G	1/5 YR
129-00-0	Pyrene	610/625	10.0	<10.3ug/L	G	1/5 YR
120-82-1	1,2,4-Trichlorobenzene	625	10.0	<10.3ug/L	G	1/5 YR

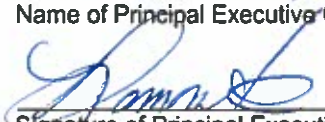
VOLATILES

CASRN	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL[1]	REPORTING RESULTS[2]	SAMPLE TYPE[3]	SAMPLE FREQUENCY
107-02-8	Acrolein	624	(5)	<50ug/L	G	1/5 YR
107-13-1	Acrylonitrile	624	(5)	<25ug/L	G	1/5 YR
71-43-2	Benzene	602/624	10.0	<5ug/L	G	1/5 YR
75-25-2	Bromoform	624	10.0	<5ug/L	G	1/5 YR
56-23-5	Carbon Tetrachloride	624	10.0	<5ug/L	G	1/5 YR
108-90-7	Chlorobenzene (synonym = Monochlorobenzene)	602/624	50.0	<5ug/L	G	1/5 YR
124-48-1	Chlorodibromomethane	624	10.0	<5ug/L	G	1/5 YR
67-66-3	Chloroform	624	10.0	<5ug/L	G	1/5 YR
75-27-4	Dichlorobromomethane	624	10.0	<5ug/L	G	1/5 YR
107-06-2	1,2-Dichloroethane	624	10.0	<5ug/L	G	1/5 YR
75-35-4	1,1-Dichloroethylene	624	10.0	<5ug/L	G	1/5 YR
156-60-5	1,2-trans-dichloroethylene	624	(5)	<5ug/L	G	1/5 YR
78-87-5	1,2-Dichloropropane	624	(5)	<5ug/L	G	1/5 YR
542-75-6	1,3-Dichloropropene	624	(5)	<5ug/L	G	1/5 YR
100-41-4	Ethylbenzene	602/624	10.0	<5ug/L	G	1/5 YR
74-83-9	Methyl Bromide (synonym = Bromomethane)	624	(5)	<5ug/L	G	1/5 YR
75-09-2	Methylene Chloride (synonym = Dichloromethane)	624	20.0	<20ug/L	G	1/5 YR
79-34-5	1,1,2,2-Tetrachloroethane	624	(5)	<5ug/L	G	1/5 YR
127-18-4	Tetrachloroethylene (synonym = Tetrachloroethene)	624	10.0	<5ug/L	G	1/5 YR
10-88-3	Toluene	602/624	10.0	<5ug/L	G	1/5 YR
79-00-5	1,1,2-Trichloroethane	624	(5)	<5ug/L	G	1/5 YR
79-01-6	Trichloroethylene (synonym = Trichloroethene)	624	10.0	<5ug/L	G	1/5 YR
75-01-4	Vinyl Chloride	624	10.0	<5ug/L	G	1/5 YR
	ACID EXTRACTABLES					
95-57-8	2-Chlorophenol	625	10.0	<10.3ug/L	G	1/5 YR
120-83-2	2,4 Dichlorophenol	625	10.0	<10.3ug/L	G	1/5 YR
105-67-9	2,4 Dimethylphenol	625	10.0	<10.3ug/L	G	1/5 YR
51-28-5	2,4-Dinitrophenol	625	(5)	<51.5ug/L	G	1/5 YR
534-52-1	2-Methyl-4,6-Dinitrophenol	625	(5)	<51.5ug/L	G	1/5 YR
25154-52-3	Nonylphenol	ASTM D 7065-06	(5)	<5.0ug/L	G	1/5 YR

CASRN	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL[1]	REPORTING RESULTS[2]	SAMPLE TYPE[3]	SAMPLE FREQUENCY
87-86-5	Pentachlorophenol	625	50.0	<20.6ug/L	G	1/5 YR
108-95-2	Phenol	625	10.0	<10.3ug/L	G	1/5 YR
88-06-2	2,4,6-Trichlorophenol	625	10.0	<10.3ug/L	G	1/5 YR
	MISCELLANEOUS					
776-41-7	Ammonia as NH3-N	350.1	200	0.17mg/L	C	1/5 YR
16887-00-6	Chloride	(4)	(5)	39.6 mg/L	C	1/5 YR (FW and PWS)
7782-50-5	Chlorine, Total Residual	(4)	100		G	1/5 YR
57-12-5	Cyanide, Free [9]	ASTM 4282-02	10.0	<0.010mg/L	G	1/5 YR
N/A	*E. coli* / *Enterococcus* (N/CML)	(4)	(5)	6MPN/100mL	G	1/5 YR
18496-25-8	Sulfide, dissolved [8]	SM 4500 S^2 B	100	<1.0mg/L	G	1/5 YR
60-10-5	Tributyltin	(6)	(5)	ND	G	1/5 YR
471-34-1	Hardness (mg/L as $CaCO_3$)	(4)	(5)	86.5mg/L	G	1/5 YR (FW & TZs)

Ramona Carter, Director of Public Works

Name of Principal Executive Officer or Authorized Agent & Title



JANUARY 15th /2016

Signature of Principal Executive Officer or Authorized Agent & Date

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. Sec. 1001 and 33 U.S.C. Sec. 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years.)

FOOTNOTES:

(1) Quantification level (QL) means the minimum levels, concentrations, or quantities of a target variable (e.g. target analyte) that can be reported with a specified degree of confidence in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories.

Units for the quantification level are micrograms/liter unless otherwise specified.

Quality control and quality assurance information (i.e. laboratory certificates of analysis) shall be submitted to document that the required quantification level has been attained.

(2) If the reporting result is greater than or equal to the QL, then include the reporting result. If the reporting result is less than the QL, then report "< [lab QL]". For example, if the reporting result is below the QL with a QL of 25 micrograms/liter, then report "<25".

(3) Sample Type

G = Grab = An individual sample collected in less than 15 minutes. Substances specified with "grab" sample type shall only be collected as grabs. The permittee may analyze multiple grabs and report the average results provided that the individual grab results are also reported. For grab metals samples, the individual samples shall be filtered and preserved immediately upon collection.

C = Composite = A 24-hour **(PW - Revise as required to require same composite duration as BOD_5)** composite unless otherwise specified. The composite shall be a combination of individual samples, taken proportional to flow, obtained at hourly or smaller time intervals. The individual samples may be of equal volume for flows that do not vary by +/- 10 percent over a 24-hour period.

(4) A specific analytical method is not specified; however, an appropriate method to meet the QL shall be selected from any approved method presented in 40 CFR Part 136.

(5) The QL is at the discretion of the permittee. If the test result is less than the method QL, a "<[QL]" shall be reported where the actual analytical test QL is substituted for [QL].

(6) Analytical Methods: Analysis of Butyltins in Environmental Systems by the Virginia Institute of Marine Science, dated November 1996 (currently the only Virginia Environmental Laboratory Accreditation Program (VELAP) accredited method).

(7) Both Chromium III and Chromium VI may be measured by the total chromium analysis. The total chromium analytical test QL shall be less than or equal to the lesser of the Chromium III or Chromium VI method QL listed above. If the result of the total chromium analysis is less than the analytical test QL, both Chromium III and Chromium VI can be reported as "<[QL]", where the actual analytical test QL is substituted for [QL].

(8) Dissolved sulfide may be measured by the total sulfide analysis. The total sulfide analytical test QL shall be less than or equal to the dissolved sulfide method QL listed above. If the result of the total sulfide analysis is less than the analytical test QL, dissolved sulfide can be reported as "<[QL]", where the actual analytical test QL is substituted for [QL].

(9) Free cyanide may be measured by the total cyanide analysis. The total cyanide analytical test QL shall be less than or equal to the free cyanide method QL listed above. If the result of the total cyanide analysis is less than the analytical test QL, free cyanide can be reported as "<[QL]", where the actual analytical test QL is substituted for [QL].

Date day/month/yr	CBODS mg/L	TSS mg/L	Ammonia as N mg/L	E-coli N/100mL	E-coli N/100mL	Copper ug/L	Nickel ug/L	Zinc ug/L	MAX FLOW	MIN FLOW	AVG FLOW	MAX pH	MIN pH	MIN DO
03-May-11	6.8	16.7	0.09		38	NA	NA	64	0.08	0.027	0.047	8.2	6.9	6.8
10-May-11	15.2	35.5	0.12		46									
17-May-11	1.9	4.6	0.04		32									
24-May-11	2	4.6	0.04		32									
31-May-11	2	5	0.06		28									
07-Jun-11	<2.0	4.9	0.04		25	NA	NA	46	0.066	0.032	0.045	8.1	6.8	6.6
14-Jun-11	<2.0	2.2	0.02		1.8									
21-Jun-11	<2.0	4	0.03		2.7									
28-Jun-11	<2.0	3	<.1		2									
05-Jul-11	<2	3.9	< 1		2	NA	NA	40	0.076	0.001	0.045	8.7	6.7	7.6
12-Jul-11	<2	3.8	< 1		2									
19-Jul-11	<2	4.9	< 1		<1									
26-Jul-11	<2	4.3	0.03		3									
02-Aug-11	1.6	4.6	0.02		2	NA	NA	63	0.064	0.014	0.037	8.6	7.2	7.4
09-Aug-11	1.7	4.7	0.03		1									
16-Aug-11	<2	4	0.02		1									
23-Aug-11	NA	4.5	< 1		1									
30-Aug-11	2.3	7.7	0.04		4									
06-Sep-11	1	7.3	0.02		1	NA	NA	60	0.084	0.01	0.045	8.5	7.3	7.8
13-Sep-11	1	4.5	0.03		1									
20-Sep-11	1	5	0.03		1									
27-Sep-11	3	6.5	0.05		1									
04-Oct-11	<2	3.7	< 1		3	NA	NA	61	0.063	0.016	0.043	8.4	6.9	8
11-Oct-11	4	3.2	< 1		3									
18-Oct-11	2	3.4	0.03		5									
25-Oct-11	4	4.7	0.03		8									
01-Nov-11	1	4.4	0.04	1	9	<10	<10	75	0.06	0.024	0.046	8.1	7	8.4
08-Nov-11	1	4.7	0.03	2	7									
15-Nov-11	1	4.3	0.03	4	8									
22-Nov-11	2	6.7	0.03	12	5									
29-Nov-11	<2	6.8	0.03	9	3									
06-Dec-11	2	7.3	0.03	<1	1	<10	<10	65	0.065	0.009	0.044	8.2	7.2	8.2
13-Dec-11	2	6.3	0.02	4	3									
20-Dec-11	<2	6.2	0.03	<1	4									
27-Dec-11	<2	7.7	0.03	<1	<1									
03-Jan-12	< 2	2.5	< 0.1	2	2	< 10	< 10	57	0.068	0.029	0.045	8.1	7.2	8.5
10-Jan-12	3	8.7	3.42	12	13									
17-Jan-12	< 2	5.6	< 0.1	3	1									
31-Jan-12	< 2	4.8	< 0.1	3	1									
07-Feb-12	< 2	4.5	0.017	<1	2	< 10	< 10	39	0.064	0.029	0.042	8.2	6.8	8
14-Feb-12	< 2	4.6	< 0.1	<1	< 1									
21-Feb-12	< 2	3.6	< 0.1	1	< 1									
28-Feb-12	< 2	6.3	< 0.1	2	1									
06-Mar-12	4	5.1	< 0.1	<1	< 1	< 10	< 10	31	0.076	0.029	0.045	8	6.9	8.2
13-Mar-12	< 2	6.6	< 0.1	<1	1									
20-Mar-12	3	6.4	< 0.1	<1	< 1									
27-Mar-12	3	12.5	0.14	3	2									
03-Apr-12	4	1.1	0.22	2	1	< 10	< 10	43	0.058	0.02	0.037	8.2	7.4	8.6
10-Apr-12	3	15	< 0.1	<1	1									
17-Apr-12	4	4.1	0.02	1	1									
24-Apr-12	4	5.9	0.68	1	< 1									
01-May-12	< 2	3.4	< .1	<1	13	< 10	<10	32	0.064	0.022	0.043	8.3	7.2	8.1
08-May-12	6	5.7	0.1	1	1									
15-May-12	< 2	5.9	0.2	2	< 1									
22-May-12	5	10.7	0.2	3	7									
29-May-12	3	9	0.2	1	1									
05-Jun-12	3	7.8	0.16	13	4	< 10	<10	35	0.066	0.009	0.041	8.3	7	7.9
12-Jun-12	3	10	0.15	7	38									
19-Jun-12	< 2	11.9	0.24	1	1									
25-Jun-12	2	3.2	0.13	<1	1									
02-Jul-12	n/a	10.8	0.2		9	13	<10	21	0.049	0.008	0.031	8.4	7.4	7.9
05-Jul-12	< 2			<1										
10-Jul-12	<2	7.2	0.2		<1									
17-Jul-12	<2	9.2	<0.1	<1	<1									
24-Jul-12	<2	6.4	0.2		<1									
01-Aug-12	<2	10.3	0.13	10	6	<10	<10	27	0.044	0.024	0.035	8.1	7.5	7.9
07-Aug-12	<2	6.8	0.1	46	19									
14-Aug-12	<2	5.1	0.11	<1	3									
21-Aug-12	<2	5.2	0.12	11	3									
28-Aug-12		3.7	0.12	1	16									
29-Aug-12	<2													
04-Sep-12	<2	4.3	<.1	1	1	<10	<10	20	0.045	0.01	0.032	8.2	7.1	8.2
11-Sep-12	<2	2.4	<.1	89	3									
18-Sep-12	<2	2.7	0.24	4	<1									
25-Sep-12	<2	10.5	0.19	11	64									

02-Oct-12	3	6.3	0.18	7	<1	<10	<10	35	0.05	0.023	0.037	8	7.3	8.3
09-Oct-12	<2	3.8	<.1	<1	<1									
16-Oct-12	<2	3.2	0.16	2	1									
22-Oct-12	5	8.6	0.16	62	3									
05-Nov-12	<2	4	<.1	1	3	<10	<10	22	0.057	0.023	0.038	8.1	7.4	9.1
13-Nov-12	4.5	15.8	0.1	4	2									
20-Nov-12	4	10.1	<.1	14	1									
27-Nov-12	<2	4.7	<.1	7	1									
04-Dec-12	<2	3.4	<.1	3	2	<10	<10	28	0.056	0.022	0.038	8.2	7.4	8.6
11-Dec-12	<2	9.5	0.1	5	3									
19-Dec-12	3	7.8	<.1	20	4									
26-Dec-12	4	4.7	<.1	5	<1									
02-Jan-13	<3	3.3	0.06	1	2	20	<20	<10	0.082	0.023	0.045	8.4	6.9	8.7
08-Jan-13	3	2.5	0.08	4	1									
15-Jan-13	<3	12.3	0.12	<1	6									
22-Jan-13	<3	4.3	0.03	3	3									
29-Jan-13	<3	5.4	0.03	4	1									
05-Feb-13	<3	4.5	0.05	1	1	20	20	10	0.063	0.027	0.038	8	7	9.2
12-Feb-13	<3	7.1	0.08	3.1	3.1									
19-Feb-13	6	21.1	0.1	20	12									
26-Feb-13	<3	8	0.03	15	<1									
05-Mar-13	11.8	5.5	0.04	10.9	1	<10	<10	<10	0.075	0.021	0.045	8.4	7	8
12-Mar-13	<3	7.5	0.09	4.1	<1									
19-Mar-13	<3	6.7	0.03	17	2									
26-Mar-13	<3	4.8	0.25	5.2	<1									
02-Apr-13	3	9.2	0.12	5	2	10	10	10	0.048	0.016	0.038	8.2	7	7.2
09-Apr-13	3	5.4	0.04	1	1									
16-Apr-13	7.2	4.8	0.07	6	1									
23-Apr-13	6.8	6.2	0.3	2	<1									
07-May-13	<3	7.6	0.12	8.4	<1	<10	<10	<10	0.046	0.01	0.025	8.1	7.1	6.6
14-May-13	5	8	0.11	3	3									
21-May-13	<3	9	0.06	20	12									
28-May-13	<3	12.6	0.1	25	11									
04-Jun-13	3	40	0.13	13	6	22	10	13	0.065	0.006	0.026	8.1	7.2	6.4
11-Jun-13	5	13	0.06	7	2									
18-Jun-13	6	12	0.07		9									
25-Jun-13	3	5.6	0.04	1	1									
02-Jul-13	8	4.2	0	1	1	10	10	10	0.075	0	0.031	7.7	7	6.5
09-Jul-13	3	5.6	0.2	222	6.3									
16-Jul-13	5	11.2	0.2	3.1	2									
23-Jul-13	3	5.6	0.1	8.4	7.5									
30-Jul-13	3	5.4	0.1	2420	1									
06-Aug-13	3	9	0.2	50	5	10	10	10	0.033	0	0.017	8	7.2	7.1
13-Aug-13	2	56	0.02	46	76									
20-Aug-13	3	22.4	0.03	31	38									
27-Aug-13	6	27.5	0.07	119	72									
03-Sep-13	3	14	0.08	96	25	16	10	14	0.031	0.001	0.014	8.1	7.4	7.8
10-Sep-13	3	8.7	0.03	5	5									
17-Sep-13	3	3	0.03	12	11									
24-Sep-13	4	5.9	0.21	14	16									
01-Oct-13	8	9.4	0.06	4	7	7	20	63	0.039	0.004	0.016	7.8	7	5.6
08-Oct-13	3	10.1	0.09	16	7									
15-Oct-13	6	7.4	0.05		13									
22-Oct-13	3	1.9	0.08	22	27									
29-Oct-13	3	5.3	0.16	13	8									
05-Nov-13	3	4.5	0.11	131	2	10	10	10	0.032	0.002	0.015	7.8	7.1	6.6
12-Nov-13	3	2.3	0.3	23	11									
19-Nov-13	2	2.8	0.15	11	1									
26-Nov-13	2	2.6	0.1	11	6									
03-Dec-13	2	2.7	0.17	73	8	7.1	n/a	62	0.045	0.008	0.022	7.8	6.9	7.6
10-Dec-13	2	3.1	0.16	98	22									
17-Dec-13	2	2.5	0.1	56	30									
26-Dec-13	2	3.9	0.11	1	12									
02-Jan-14	3	4.6	0.12		48	7	10	53	0.064	0.013	0.03	7.6	6.9	7.9
07-Jan-14	4	2.6	18.1	21	30									
14-Jan-14	2	3.3	0.13	1	20									
21-Jan-14	2	2.9	0.11	44	35									
28-Jan-14	2	3.8	0.1	10	4									
04-Feb-14	15	3.6	0.17	99	1	10	15	34	0.098	0.016	0.036	7.4	6.6	7.6
11-Feb-14	6	3	0.1	1	1									
18-Feb-14	6	3.6	0.1	1	1									
25-Feb-14	11	4.4	0.15	142	219									
05-Mar-14	2	2.7	0.1	20	1	8	10	62	0.051	0.013	0.03	8.4	6.9	7.4
11-Mar-14	2	2.5	0.1	1	1									
18-Mar-14	2	4.6	0.1	1	1									
25-Mar-14	2	1.2	0.1	1	1									

01-Apr-14	3	3.8	0.14	1	1	7	10	82	0.08	0.013	0.031	7.6	6.9	5.2
08-Apr-14	12	3	0.11	2	1									
15-Apr-14	2	4.3	0.11	8	8									
22-Apr-14	2	2.8	0.12	7	6									
29-Apr-14	2	6.5	0.2	3	3									
06-May-14	5	11.4	0.2	34	11	15	10	67	0.075	0.012	0.031	7.5	6.8	5
13-May-14	5	4	0.4	1	2									
20-May-14	2	5.8	0.2	1	4									
27-May-14	2	2.9	0.3	25	1									
03-Jun-14	2	3	0.22	1	1	8	10	79	0.04	0.009	0.023	8.2	7.1	5.6
10-Jun-14	2	1.9	0.16	8	1									
17-Jun-14	2	1.6	0.13	1	1									
24-Jun-14	2	1.2	0.16	1	5									
01-Jul-14	2	1.3	0.2	1	1	9	10	66	0.037	0.004	0.031	8.3	7.3	6.2
08-Jul-14	2	1	0.1	17	1									
15-Jul-14	2	9.7	0.1	579	7									
22-Jul-14	3	21.1	0.1	10	155									
29-Jul-14	2	1.3	0.1	6	1									
06-Aug-14	2	5.3	0.23	1	1	6	10	42	0.042	0.005	0.022	8.1	7.3	6.3
12-Aug-14	2	2.1	0.1	1	1									
19-Aug-14	2	1.4	0.1	34	1									
26-Aug-14	2	1	0.1	4	1									
02-Sep-14	2	2.5	0.1	4	5	7	10	70	0.046	0.008	0.026	7.8	7	5.3
09-Sep-14	2	6.6	0.13	6	52									
16-Sep-14	6	18	0.33	1730	980									
23-Sep-14	2	9.1	0.31	1	2									
01-Oct-14	2	2.7	0.1		1	5	10	59	0.046	0.009	0.026	7.9	7	7
07-Oct-14	2	9.3	0.13	12	1									
14-Oct-14	2	3.5	0.1	20	1									
21-Oct-14	2	3.8	0.1	135	1									
28-Oct-14	2	3.6	0.14	1	2									
04-Nov-14	2	2.5	0.12	1	1	8	1	59	0.035	0.015	0.025	7.9	7	7
12-Nov-14	2	2.5	0.13	4	1									
18-Nov-14	2	3.5	0.1	19	28									
25-Nov-14	4	4.2	0.11	1	1									
02-Dec-14	3	4.8	0.1	1	2	8	10	55	0.041	0.015	0.026	7.9	7.2	7.7
09-Dec-14	2	4.8	0.14	2420	1410									
16-Dec-14	2	2.2	0.1	16	1									
23-Dec-14	2	4.6	0.14	2420	52									
30-Dec-14	2	4.1	0.14	11	5									
06-Jan-15	3	7.6	0.23	194	365	18	10	81	0.057	0.002	0.029	7.7	6.8	6.8
13-Jan-15	9	6	0.56	727	461									
20-Jan-15	12	10.6	2.1	2420	2420									
27-Jan-15	2	5.3	1.03	2420	2420									
03-Feb-15	2	3.1	0.13	3	3	8	10	70	0.086	0.002	0.026	7.8	6.7	7.7
10-Feb-15	2	3.4	0.1	66	49									
18-Feb-15	2	4.3	0.18	1	28									
24-Feb-15	2	4	0.1	1	10									
03-Mar-15	2.6	3.7	0.16	3	2	5	10	52	0.078	0.021	0.038	7.5	6.4	7.6
10-Mar-15	4.4	5.8	0.17	4	58									
17-Mar-15	2.2	7.4	0.15	1	5									
24-Mar-15	2	6.9	0.14	2	1									
31-Mar-15	2.1	7.6	0.14		9									
07-Apr-15	2	3.9	0.22	5	16	10	10	77	0.043	0.014	0.025	7.9	6.9	7.4
14-Apr-15	2	3	0.26	3	2									
21-Apr-15	2	4.8	0.1	1	2									
28-Apr-15	2	8	0.13	7	6									
05-May-15	2	5.3	0.19	214	122	8	10	80	0.08	0.016	0.032	7.9	7.1	5.3
12-May-15	2	7	0.2	2	1									
19-May-15	2	4	0.1	1	8									
26-May-15	3	5.2	0.2	1	15									
02-Jun-15	2	4.7	0.18	2	1	9	10	64	0.067	0.027	0.04	7.8	7.2	5.2
09-Jun-15	2	3.5	0.1	2	1									
16-Jun-15	2	3	0.13	1	1									
23-Jun-15	2	7.2	0.12	10	2									
30-Jun-15	2	5	0.15		32									
07-Jul-15	2	4.1	0.1	15	1	10	10	54	0.048	0.016	0.031	8.1	7.4	5.8
14-Jul-15	3	6.8	0.1	3	40									
21-Jul-15	2	2.7	0.1	28	8									
28-Jul-15	2	4	0.1	3	12									

04-Aug-15	2	3.5	0.2	2	6	13	10	110	0.028	0.002	0.019	8.6	7.7	5.6
11-Aug-15	2	7.2	0.18	27	18									
18-Aug-15	2	4.2	0.18	3	79									
25-Aug-15	2	9	0.14	19	50									
02-Sep-15	3	11.2	0.34	2420	13	10	10	92	0.091	0.01	0.03	8.2	7.5	5.5
08-Sep-15	3	9	0.17	27	15									
15-Sep-15	4	14.7	0.17	1120	2420									
22-Sep-15	3	9.4	0.43	1	10									
29-Sep-15	2	5.9	0.24	55	4									
06-Oct-15	2	6.1	0.16	12	11	9	10	44	0.121	0.018	0.042	8.1	7	5.1
13-Oct-15	2	5.9	0.18	76	34									
20-Oct-15	2	6.6	0.16	55	79									
27-Oct-15	2	3.1	0.12	12	5									

number of daily samples 1645

FACILITY NAME: Fighting Creek WWTP VPDES PERMIT NUMBER: VA-0089206 501

VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM

SCREENING INFORMATION

This application is divided into sections. Sections A pertain to all applicants. The applicability of Sections B, C and D depend on your facility's sewage sludge use or disposal practices. The information provided on this page will help you determine which sections to fill out.

1. All applicants must complete Section A (General Information).

2. Will this facility generate sewage sludge? _X_ Yes __No

   Will this facility derive a material from sewage sludge? __Yes _X_ No

   If you answered Yes to either, complete Section B (Generation Of Sewage Sludge Or Preparation Of A Material Derived From Sewage Sludge).

3. Will this facility apply sewage sludge to the land? __Yes _X_ No

   Will sewage sludge from this facility be applied to the land? _X_ Yes __No

   If you answered No to both questions above, skip Section C.

   If you answered Yes to either, answer the following three questions:

   a. Will the sewage sludge from this facility meet the ceiling concentrations, pollutant concentrations, Class A pathogen reduction requirements and one of the vector attraction reduction requirements 1-8, as identified in the instructions?
   __Yes _X_ No

   b. Will sewage sludge from this facility be placed in a bag or other container for sale or give-away for application to the land? __Yes _X_ No

   c. Will sewage sludge from this facility be sent to another facility for treatment or blending? __Yes _X_ No

   If you answered No to all three, complete Section C (Land Application Of Bulk Sewage Sludge).

   If you answered Yes to a, b or c, skip Section C.

4. Do you own or operate a surface disposal site? __Yes _X_ No

   If Yes, complete Section D (Surface Disposal).

SECTION A. GENERAL INFORMATION

All applicants must complete this section.

1. Facility Information.
   a. Facility name: Fighting Creek Waste Water Treatment Plant

   b. Contact person: Tim Glidewell
   Title: Utilities Operations Supervisor-Lead Operator
   Phone: (804) 598-5764
   c. Mailing address: 3834 Old Buckingham Rd
   Street or P.O. Box:
   City or Town: Powhatan State: VA Zip: 23139
   d. Facility location: 3900 Old Plantation Road
   Street or Route #:
   County: Powhatan
   City or Town: Powhatan State: VA Zip: 23139
   e. Is this facility a Class I sludge management facility? __Yes _X_No
   f. Facility design flow rate: 0.100 mgd
   g. Total population served: 5,000
   h. Indicate the type of facility:
   _X_ Publicly owned treatment works (POTW)
   ___ Privately owned treatment works
   ___ Federally owned treatment works
   ___ Blending or treatment operation
   ___ Surface disposal site
   ___ Other (describe):

2. Applicant Information. If the applicant is different from the above, provide the following:
   a. Applicant name: Powhatan County
   b. Mailing address: 3834 Old Buckingham Rd Suite A
   Street or P.O. Box:
   City or Town: Powhatan State: VA Zip: 23139
   c. Contact person: Ramona Carter
   Title: Director of Public Works

   Phone: (804) 598-5764
   d. Is the applicant the owner or operator (or both) of this facility?
   __x__owner _____ operator
   e. Should correspondence regarding this permit be directed to the facility or the applicant? (Check one)
   __x__ facility __x__ applicant

3. Permit Information.
   a. Facility's VPDES permit number (if applicable): VA-0089206 501
   b. List on this form or an attachment, all other federal, state or local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices:
   Permit Number: Type of Permit:
   _____
   _____

4. Indian Country. Does any generation, treatment, storage, application to land or disposal of sewage sludge from this facility occur in Indian Country? __Yes __x__No If yes, describe:

5. Topographic Map. Provide a topographic map or maps (or other appropriate maps if a topographic map is unavailable) that shows the following information. Maps should include the area one mile beyond all property boundaries of the facility:
   a. Location of all sewage sludge management facilities, including locations where sewage sludge is generated, stored, treated, or disposed.
   b. Location of all wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within 1/4 mile of the property boundaries.

6. Line Drawing. Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction.

7. Contractor Information. Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? __Yes __No
If yes, provide the following for each contractor (attach additional pages if necessary).
Name: Synagro Central, LLC
Mailing address:435 Williams Court
Street or P.O. Box:
City or Town: Baltimore State: MD Zip: 21220
Phone: (443) 489-9000
Contractor's Federal, State or Local Permit Number(s) applicable to this facility's sewage sludge:

If the contractor is responsible for the use and/or disposal of the sewage sludge, provide a description of the service to be provided to the applicant and the respective obligations of the applicant and the contractor(s).
Pump aged sludge into trucks, haul to local land application sight and land apply according to DEQ approved sludge management plan.

8. Pollutant Concentrations. Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants which limits in sewage sludge have been established in 9 VAC 25-31-10 et seq. for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old.

POLLUTANT	CONCENTRATION (mg/kg dry weight)	SAMPLE DATE	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
Arsenic	<42.2 mg/kg	11/24/15	6010 C	48.0
Cadmium	<8.45 mg/kg	11/24/15	6010 C	9.60
Chromium	165 mg/kg	11/24/15	6010 C	24.0
Copper	595 mg/kg	11/24/15	6010 C	120
Lead	<21.1 mg/kg	11/24/15	6010 C	24.0
Mercury	0.254 mg/kg	11/24/15	6010 C	0.394
Molybdenum	<106 mg/kg	11/24/15	6010 C	120
Nickel	76.6 mg/kg	11/24/15	6010 C	24.0
Selenium	<106 mg/kg	11/24/15	6010 C	120
Zinc	799 mg/kg	11/24/15	6010 C	24.0

9. Certification. Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of the application you have completed and are submitting:

__X__Section A (General Information)
__X__Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)
__X__Section C (Land Application of Bulk Sewage Sludge)
____Section D (Surface Disposal)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title: Ramona Carter, Director of Public Works

Signature _____ Date Signed January 15th/2016

Telephone number (804)598-5764

Upon request of the department, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

FACILITY NAME: Fighting Creek WWTP VPDES PERMIT NUMBER: VA-0089206 501

SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. Amount Generated On Site.
   Total dry metric tons per 365-day period generated at your facility: 6.0 dry metric tons

2. Amount Received from Off Site. If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
   a. Facility name: n/a
   b. Contact Person: n/a
      Title: n/a
      Phone (000) 000-0000
   c. Mailing address: n/a
      Street or P.O. Box: n/a
      City or Town: n/a State: n/a Zip:
   d. Facility Address: n/a
      (not P.O. Box)
   e. Total dry metric tons per 365-day period received from this facility: n/a dry metric tons
   f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics:

3. Treatment Provided at Your Facility.
   a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
      __Class A __X_Class B __Neither or unknown
   b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge:
      Aerobic sludge digester with long term holding (+ 60 days)
   c. Which vector attraction reduction option is met for the sewage sludge at your facility?
      ___ Option 1 (Minimum 38 percent reduction in volatile solids)
      ___ Option 2 (Anaerobic process, with bench-scale demonstration)
      ___ Option 3 (Aerobic process, with bench-scale demonstration)
      _x_ Option 4 (Specific oxygen uptake rate for aerobically digested sludge) See Plan in Appendix B
      ___ Option 5 (Aerobic processes plus raised temperature)
      ___ Option 6 (Raise pH to 12 and retain at 11.5)
      ___ Option 7 (75 percent solids with no unstabilized solids)
      ___ Option 8 (90 percent solids with unstabilized solids)
      ___ None or unknown
   d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge:
      Aerobic sludge digester with long term (+60 days) holding capacity
   e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: n/a

4. Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements and One of Vector Attraction Reduction Options 1-8 (EQ Sludge).
   (If sewage sludge from your facility does not meet all of these criteria, skip Question 4.)
   a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land:
      n/a dry metric tons
   b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away?

__Yes _x_No

5. Sale or Give-Away in a Bag or Other Container for Application to the Land.

(Complete this question if you place sewage sludge in a bag or other container for sale or give-away prior to land application. Skip this question if sewage sludge is covered in Question 4.)

a. Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land: n/a dry metric tons

b. Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land.

6. Shipment Off Site for Treatment or Blending.

(Complete this question if sewage sludge from your facility is sent to another facility that provides treatment or blending. This question does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this question if the sewage sludge is covered in Questions 4 or 5. If you send sewage sludge to more than one facility, attach additional sheets as necessary.)

a. Receiving facility name: n/a

b. Facility contact: n/a
Title: n/a
Phone: (000)000-0000

c. Mailing address: n/a
Street or P.O. Box: n/a
City or Town: n/a State: n/a Zip:

d. Total dry metric tons per 365-day period of sewage sludge provided to receiving facility: n/a dry metric tons

e. List, on this form or an attachment, the receiving facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the receiving facility's sewage sludge use or disposal practices:

Permit Number:	Type of Permit:
n/a	n/a

f. Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility? __Yes __No
Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?
__Class A __Class B __Neither or unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge: n/a

g. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge? __Yes __No
Which vector attraction reduction option is met for the sewage sludge at the receiving facility?
__ Option 1 (Minimum 38 percent reduction in volatile solids)
__ Option 2 (Anaerobic process, with bench-scale demonstration)
__ Option 3 (Aerobic process, with bench-scale demonstration)
__ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
__ Option 5 (Aerobic processes plus raised temperature)
__ Option 6 (Raise pH to 12 and retain at 11.5)
__ Option 7 (75 percent solids with no unstabilized solids)
__ Option 8 (90 percent solids with unstabilized solids)
__ None unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge:

h. Does the receiving facility provide any additional treatment or blending not identified in f or g above?
__Yes __No
If yes, describe, on this form or another sheet of paper, the treatment processes not identified in f or g above:

i. If you answered yes to f., g or h above, attach a copy of any information you provide to the receiving facility to comply with the "notice and necessary information" requirement of 9 VAC 25-31-530.G.

j Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land? __Yes __No
If yes, provide a copy of all labels or notices that accompany the product being sold or given away.

k. Will the sewage sludge be transported to the receiving facility in a truck-mounted watertight tank normally used for such purposes? ___ Yes ___ No. If no, provide description and specification on the vehicle used to transport the sewage sludge to the receiving facility.
Show the haul route(s) on a location map or briefly describe the haul route below and indicate the days of the week and the times of the day sewage sludge will be transported.

7. Land Application of Bulk Sewage Sludge.
(Complete Question 7.a if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in Questions 4, 5 or 6; complete Question 7.b, c & d only if you are responsible for land application of sewage sludge.)

a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites: 5.0 dry metric tons

b. Do you identify all land application sites in Section C of this application? __Yes __No
If no, submit a copy of the Land Application Plan (LAP) with this application (LAP should be prepared in accordance with the instructions).

c. Are any land application sites located in States other than Virginia? __Yes __No
If yes, describe, on this form or on another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.

d. Attach a copy of any information you provide to the owner or lease holder of the land application sites to comply with the "notice and necessary" information requirement of 9 VAC 25-31-530 F and/or H (Examples may be obtained in Appendix IV).

8. Surface Disposal.
(Complete Question 8 if sewage sludge from your facility is placed on a surface disposal site.)

a. Total dry metric tons per 365-day period of sewage sludge from your facility placed on all surface disposal sites: _____ dry metric tons

b. Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?
__Yes __No
If no, answer questions c - g for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one surface disposal site, attach additional pages as necessary.

c. Site name or number:

d. Contact person:
Title:
Phone: ( )
Contact is: __Site Owner __Site operator

e. Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

f. Total dry metric tons per 365-day period of sewage sludge from your facility placed on this surface disposal site: _____ dry metric tons

g. List, on this form or an attachment, the surface disposal site VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the sewage sludge use or disposal practices at the surface disposal site:

Permit Number:	Type of Permit:
_____	
_____	

9. Incineration.
(Complete Question 9 if sewage sludge from your facility is fired in a sewage sludge incinerator.)

a. Total dry metric tons per 365-day period of sewage sludge from your facility fired in a sewage sludge incinerator: _____ dry metric tons

b. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired?
___Yes ___No
If no, answer questions c - g for each sewage sludge incinerator that you do not own or operate. If you send sewage sludge to more than one sewage sludge incinerator, attach additional pages as necessary.

c. Incinerator name or number:

d. Contact person:
Title:
Phone: ( )
Contact is: __Incinerator Owner __Incinerator Operator

e. Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

f. Total dry metric tons per 365-day period of sewage sludge from your facility fired in this sewage sludge incinerator: _____ dry metric tons

g. List on this form or an attachment the numbers of all other federal, state or local permits that regulate the firing of sewage sludge at this incinerator:

Permit Number:	Type of Permit:
_____	
_____	

10. Disposal in a Municipal Solid Waste Landfill.

(Complete Question 10 if sewage sludge from your facility is placed on a municipal solid waste landfill. Provide the following information for each municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.)

a. Landfill name:

b. Contact person:
Title:
Phone: ( )
Contact is: __Landfill Owner __Landfill Operator

c. Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

d. Landfill location.
Street or Route #:
County:
City or Town: _____ State:_____ Zip:

e. Total dry metric tons per 365-day period of sewage sludge placed in this municipal solid waste landfill: _____ dry metric tons

f. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the operation of this municipal solid waste landfill:

Permit Number:	Type of Permit:
_____	
_____	

g. Does sewage sludge meet applicable requirements in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq., concerning the quality of materials disposed in a municipal solid waste landfill?
__Yes __No

h. Does the municipal solid waste landfill comply with all applicable criteria set forth in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq.? __Yes __No

i. Will the vehicle bed or other container used to transport sewage sludge to the municipal solid waste landfill be watertight and covered? ___ Yes ___ No
Show the haul route(s) on a location map or briefly describe the route below and indicate the days of the week and time of the day sewage sludge will be transported.

SECTION C. LAND APPLICATION OF BULK SEWAGE SLUDGE

Complete this section for sewage sludge that is land applied unless any of the following conditions apply:

The sewage sludge meets the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen requirements and one of the vector attraction reduction options 1-8 (fill out B.4 instead) (EQ Sludge); or

The sewage sludge is sold or given away in a bag or other container for application to the land (fill out B.5 instead); or

You provide the sewage sludge to another facility for treatment or blending (fill out B.6 instead).

Complete Section C for every site on which the sewage sludge that you reported in B.7 is land applied.

1. Identification of Land Application Site.
   a. Site name or number: VA-AM-00013-0-0014-B
   b. Site location (Complete i and ii)
      i. Street or Route#:
      County:
      City or Town: _____ State: _____ Zip:
      ii. Latitude: 37.23'52" Longitude: 77.58'54"
      Method of latitude/longitude determination
      _____ USGS map _____ Filed survey __X__ Other
   c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.

2. Owner Information.
   a. Are you the owner of this land application site? __Yes _X_No
   b. If no, provide the following information about the owner:
      Name: Caroline M. Vaughn Level Mount Farms, Amelia County Virginia

      Street or P.O. Box:
      City or Town: _____ State:_____ Zip:
      Phone: ( )

3. Applier Information:
   a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site? __Yes _X_No
   b. If no, provide the following information for the person who applies the sewage sludge:
      Name: Synagro
      Street or P.O. Box: 435 Williams Court, Suite 100

      City or Town: Baltimore State: MD Zip: 21220
      Phone: (443) 489-9029
   c. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the person who applies sewage sludge to this land application site:

Permit Number:	Type of Permit:
VPA00813	

4. Site Type. Identify the type of land application site from among the following:
   _X_Agricultural land __Reclamation site __Forest
   __Public contact site __Other. Describe

5. Vector Attraction Reduction.
   Are any vector attraction reduction requirements met when sewage sludge is applied to the land application site?
   ____Yes _x_No If yes, answer a and b.
   a. Indicate which vector attraction reduction option is met:
      __ Option 9 (Injection below land surface)
      __ Option 10 (Incorporation into soil within 6 hours)
   b. Describe, on this form or on another sheet of paper, any treatment processes used at the land application site to reduce the vector attraction properties of sewage sludge:

6. Cumulative Loadings and Remaining Allotments.

(Complete Question 6 only if the sewage sludge applied to this site since July 20, 1993 is subject to the cumulative pollutant loading rates (CPLRs) - see instructions.)

a. Have you contacted DEQ or the permitting authority in the state where the sewage sludge subject to the CPLRs will be applied to ascertain whether bulk sewage sludge subject to the CPLRs has been applied to this site since July 20, 1993? ___Yes ___No
If no, sewage sludge subject to the CPLRs may not be applied to this site.
If yes, provide the following information:
Permitting authority:
Contact person:
Phone:( )

b. Based upon this inquiry, has bulk sewage sludge subject to the CPLRs been applied to this site since July 20, 1993? ___Yes ___No If no, skip the rest of Question 6. If yes, answer questions c - e.

c. Site size, in hectares: _____ (one hectare = 2.471 acres)

d. Provide the following information for every facility other than yours that is sending or has sent sewage sludge subject to the CPLRs to this site since July 20, 1993. If more than one such facility sends sewage sludge to this site, attach additional pages as necessary.
Facility name:
Facility contact:
Title:
Phone: ( )
Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

e. Provide the total loading and allotment remaining, in kg/hectare, for each of the following pollutants:

	Cumulative loading	Allotment remaining
Arsenic	_____	
Cadmium	_____	
Copper	_____	
Lead	_____	
Mercury	_____	
Nickel	_____	
Selenium	_____	
Zinc	_____	

Complete Questions 7-12 below only if you apply sewage sludge, or you are responsible for land application of sewage sludge. Information required by these questions may be prepared as attachments to this form. Skip the following questions if you contract land application to someone else (as indicated under Section A.7) who is responsible for the operation.

7. Sludge Characterization. Use the table below or a separate attachment, provide at least one analysis for each parameter.

PCBs (mg/kg)
pH (S. U.)
Percent Solids (%)
Ammonium Nitrogen (mg/kg)
Nitrate Nitrogen (mg/kg)
Total Kjeldahl Nitrogen (mg/kg)
Total Phosphorus (mg/kg)
Total Potassium (mg/kg)
Alkalinity as $CaCO_3$* (mg/kg)

* Lime treated sludge (10% or more lime by dry weight) should be analyzed for percent $CaCO_3$.

8. Storage Requirements.

Existing and proposed sludge storage facilities must provide an estimated annual sludge balance on a monthly basis incorporating such factors as storage capacity, sludge production and land application schedule. Include pertinent calculations justifying storage requirements.

Proposed sludge storage facilities must also provide the following information:

a. A sludge storage site layout on a 7.5 minute topographic quadrangle or other appropriate scaled map to show the following topographic features of the surrounding landscape to a distance of 0.25 mile. Clearly mark the property line.
   1) Water wells, abandoned or operating
   2) Surface waters
   3) Springs
   4) Public water supply(s)
   5) Sinkholes
   6) Underground and/or surface mines
   7) Mine pool (or other) surface water discharge points
   8) Mining spoil piles and mine dumps
   9) Quarry(s)
   10) Sand and gravel pits
   11) Gas and oil wells
   12) Diversion ditch(s)
   13) Agricultural drainage ditch(s)
   14) Occupied dwellings, including industrial and commercial establishments
   15) Landfills or dumps
   16) Other unlined impoundments
   17) Septic tanks and drainfields
   18) Injection wells
   19) Rock outcrops

b. A topographic map of sufficient detail to clearly show the following information:
   1) Maximum and minimum percent slopes
   2) Depressions on the site that may collect water
   3) Drainageways that may attribute to rainfall run-on to or runoff from this site
   4) Portions of the site (if any) which are located with the 100-year floodplain and how the storage facility will be protected from flooding

c. Data and specifications for the storage facility lining material.

d. Plan and cross-sectional views of the storage facility.

e. Depth from the bottom of the storage facility to the seasonal high water table and separation distance to the permanent water table.

9. Land Area Requirements. Provide calculations justifying the land area requirements for land application of sewage sludge taking into consideration average soil productivity group, crop(s) to be grown and most limiting factor(s) of the sewage sludge, specifically Plant Available Nitrogen (PAN), Calcium Carbonate Equivalence (CCE), and metal loadings (CPLR sewage sludge only), where applicable. Relate PAN, CCE, and metal loadings to demonstrate the most limiting factor for land application.

10. Landowner Agreement Forms. Provide a properly completed **Land Application Agreement – Biosolids** Form and necessary attachments (attached at end of VPDES Sewage Sludge Permit Application Form) for each landowner if sewage sludge is to be applied onto land not owned by the applicant.

11. Ground Water Monitoring.

Are any ground water monitoring data available for this land application site? __Yes __No

If yes, submit the ground water monitoring data with this permit application. Also submit a written description of the well locations, approximate depth to ground water, and the ground water monitoring procedures used to obtain these data.

12. Land Application Site Information.

(Complete Items a-d for sites receiving infrequent application - land application of sewage sludge up to the agronomic rate at a frequency of once in a 3 year period; complete Items a-h for sites receiving frequent application - land application of sewage sludge in excess of 70% the agronomic rate at a frequency greater than once in a 3 year period)

a. Provide a general location map for each county which clearly indicates the location of all the land application sites.

b. For each land application site provide a site plan of sufficient detail to clearly show the concerned landscape features and associated buffer zones (See instructions). Provide a legend for each landscape feature and the net acreage for each field taking into account the proposed buffer zones.

c. In order to ensure that land application of bulk sewage sludge will not impact federally listed threatened or endangered species or federally designated critical habitat, the applicant must notify the field office of the U. S. Department of the Interior, Fish and Wildlife Service (FWS), by a letter, the proposed land application activities with the identification of the land application sites. The address and phone number of FWS are provided below.

U. S. Fish and Wildlife Service
Virginia Field Office
6669 Short Lane
Gloucester, VA 23061
TEL: (804)693-6694

Provide a copy of the notification letter with this application form.

d. Provide a soil survey map, preferably photographically based, with the field boundaries clearly marked. (A USDA-SCS soil survey map should be provided, if available.)
Provide a detailed legend for each soil survey map which uses accepted USDA-SCS descriptions of the typifying pedon for each soil series (soil type). Complex associations may be described as a range of characteristics. Soil descriptions shall include as a minimum the following information.

1) Soil symbol
2) Soil series, textural phase and slope range
3) Depth to seasonal high water table
4) Depth to bedrock
5) Estimated soil productivity group (for the proposed crop rotation)

Item e - h are required for sites receiving frequent application of sewage sludge

e. In order to verify the information provided in item d, characterize the soil at each land application site. Representative soil borings or test pits to a depth of five feet or to bedrock if shallower, are to be coordinated for the typifying pedon of each soil series (soil type). Soil descriptions shall include as a minimum the following information:

1). Soil symbol
2). Soil series, textural phase and slope range
3). Depth to seasonal high water table
4). Depth to bedrock
5). Estimated soil productivity group (for the proposed crop rotation)

f. Collect and analyze soil samples from each field, weighted to best represent each of the soil borings performed for Item e. Using the table below or a separate attachment, provide at least one analysis per sample for each of the following parameters.

Soil Organic Matter (%)
Soil pH (std. units)
Cation Exchange Capacity (meq/100g)
Total Nitrogen (ppm)
Organic Nitrogen (ppm)
Ammonia Nitrogen (ppm)
Nitrate Nitrogen (ppm)
Available Phosphorus (ppm)
Exchangeable Potassium (mg/100g)
Exchangeable Sodium (mg/100g)
Exchangeable Calcium (mg/100g)
Exchangeable Magnesium (mg/100g)
Arsenic (ppm)
Cadmium (ppm)
Copper (ppm)
Lead (ppm)
Mercury (ppm)
Molybdenum (ppm)
Nickel (ppm)
Selenium (ppm)
Zinc (ppm)
Manganese (ppm)
Particle Size Analysis or
USDA Textural Estimate (%)

g. Relate the crop nutrient needs to anticipated yields, soil productivity rating and the various fertilizer or nutrient sources from sludge and chemical fertilizers. Describe any specialized agronomic management practices which may be required as a result of high soil pH. If the sludge is expected to possess an unusually high CCE or other unusual properties, provide a description of any plant tissue testing, supplemental fertilization or intensive agronomic management practices which may be necessary.

h. Using a narrative format and referencing any related charts, describe the proposed cropping system. Show how the crop rotation and management will be coordinated with the design of the land application system. Include any supplemental fertilization program, soil testing and the coordination of tillage practices, planting and harvesting schedules and timing of land application.

SECTION D. SURFACE DISPOSAL

Complete this section only if you own or operate a surface disposal site. Provide the information for each active sewage sludge unit.

1. Information on Active Sewage Sludge Units.
   a. Unit name or number:
   b. Unit location
      i. Street or Route#:
      County:
      City or Town: _____ State: _____ Zip:
      ii. Latitude:_____ Longitude:
      Method of latitude/longitude determination
      _____ USGS map _____ Filed survey _____ Other
   c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.
   d. Total dry metric tons of sewage sludge placed on the active sewage sludge unit per 365-day period: _____dry metric tons.
   e. Total dry metric tons of sewage sludge placed on the active sewage sludge unit over the life of the unit: _____ dry metric tons.
   f. Does the active sewage sludge unit have a liner with a minimum hydraulic conductivity of 1×10^{-7}cm/sec? ___Yes ___No If yes, describe the liner or attach a description.

   g. Does the active sewage sludge unit have a leachate collection system? ___Yes ___No
   If yes, describe the leachate collection system or attach a description. Also, describe the method used for leachate disposal and provide the numbers of any federal, state or local permits for leachate disposal:

   h. If you answered no to either f or g, answer the following:
   Is the boundary of the active sewage sludge unit less than 150 meters from the property line of the surface disposal site? ___Yes ___No If yes, provide the actual distance in meters:
   i. Remaining capacity of active sewage sludge unit, in dry metric tons:_____ dry metric tons
   Anticipated closure date for active sewage sludge unit, if known:_____ (MM/DD/YYYY)
   Provide with this application a copy of any closure plan developed for this active sewage sludge unit.

2. Sewage Sludge from Other Facilities.
   Is sewage sludge sent to this active sewage sludge unit from any facilities other than yours? ___Yes ___No
   If yes, provide the following information for each such facility, attach additional sheets as necessary.
   a. Facility name:
   b. Facility contact:
      Title:
      Phone: ( )
   c. Mailing address.
      Street or P.O. Box:
      City or Town:_____ State:_____ Zip:
   d. List, on this form or an attachment, the facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the facility's sewage sludge management practices:
      Permit Number: Type of Permit:
      _____
      _____
   e. Which class of pathogen reduction is achieved before sewage sludge leaves the other facility?
      ___Class A ___Class B ___Neither or unknown
   f. Describe, on this form or on another sheet of paper, any treatment processes used at the other facility to reduce pathogens in sewage sludge:

g. Which vector attraction reduction option is achieved before sewage sludge leaves the other facility?
___ Option 1 (Minimum 38 percent reduction in volatile solids)
___ Option 2 (Anaerobic process, with bench-scale demonstration)
___ Option 3 (Aerobic process, with bench-scale demonstration)
___ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
___ Option 5 (Aerobic processes plus raised temperature)
___ Option 6 (Raise pH to 12 and retain at 11.5)
___ Option 7 (75 percent solids with no unstabilized solids)
___ Option 8 (90 percent solids with unstabilized solids)
___ None or unknown

h. Describe, on this form or another sheet of paper, any treatment processes used at the other facility to reduce vector attraction properties of sewage sludge:

i. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities performed by the other facility that are not identified in e - h above:

3. Vector Attraction Reduction.

a. Which vector attraction reduction option, if any, is met when sewage sludge is placed on this active sewage sludge unit?
___ Option 9 (Injection below land surface)
___ Option 10 (Incorporation into soil within 6 hours)
___ Option 11 (Covering active sewage sludge unit daily)

b. Describe, on this form or another sheet of paper, any treatment processes used at the active sewage sludge unit to reduce vector attraction properties of sewage sludge:

4. Ground Water Monitoring.

a. Is ground water monitoring currently conducted at this active sewage sludge unit or are ground water monitoring data otherwise available for this active sewage sludge unit? ___Yes ___No
If yes, provide a copy of available ground water monitoring data. Also provide a written description of the well locations, the approximate depth to ground water, and the ground water monitoring procedures used to obtain these data.

b. Has a ground water monitoring program been prepared for this active sewage sludge unit?
___Yes ___No If yes, submit a copy of the ground water monitoring program with this application.

c. Have you obtained a certification from a qualified ground water scientist that the aquifer below the active sewage sludge unit has not been contaminated? ___Yes ___No
If yes, submit a copy of the certification with this application.

5. Site-Specific Limits.

Are you seeking site-specific pollutant limits for the sewage sludge placed on the active sewage sludge unit?
___Yes ___No If yes, submit information to support the request for site-specific pollutant limits with this application.

VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM

LAND APPLICATION AGREEMENT - BIOSOLIDS

A. This land application agreement is made on _____ between _____ referred to here as "Landowner", and _____, referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

Landowner:

The Landowner is the owner of record of the real property located in _____, Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids

Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID

☐ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one:
- ☐ The Landowner is the sole owner of the properties identified herein.
- ☐ The Landowner is one of multiple owners of the properties identified herein.

In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, the Landowner shall:

1. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
2. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply biosolids on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of biosolids for the purpose of determining compliance with regulatory requirements applicable to such application.

_____

Landowner – Printed Name, Title Signature Mailing Address

Permittee:

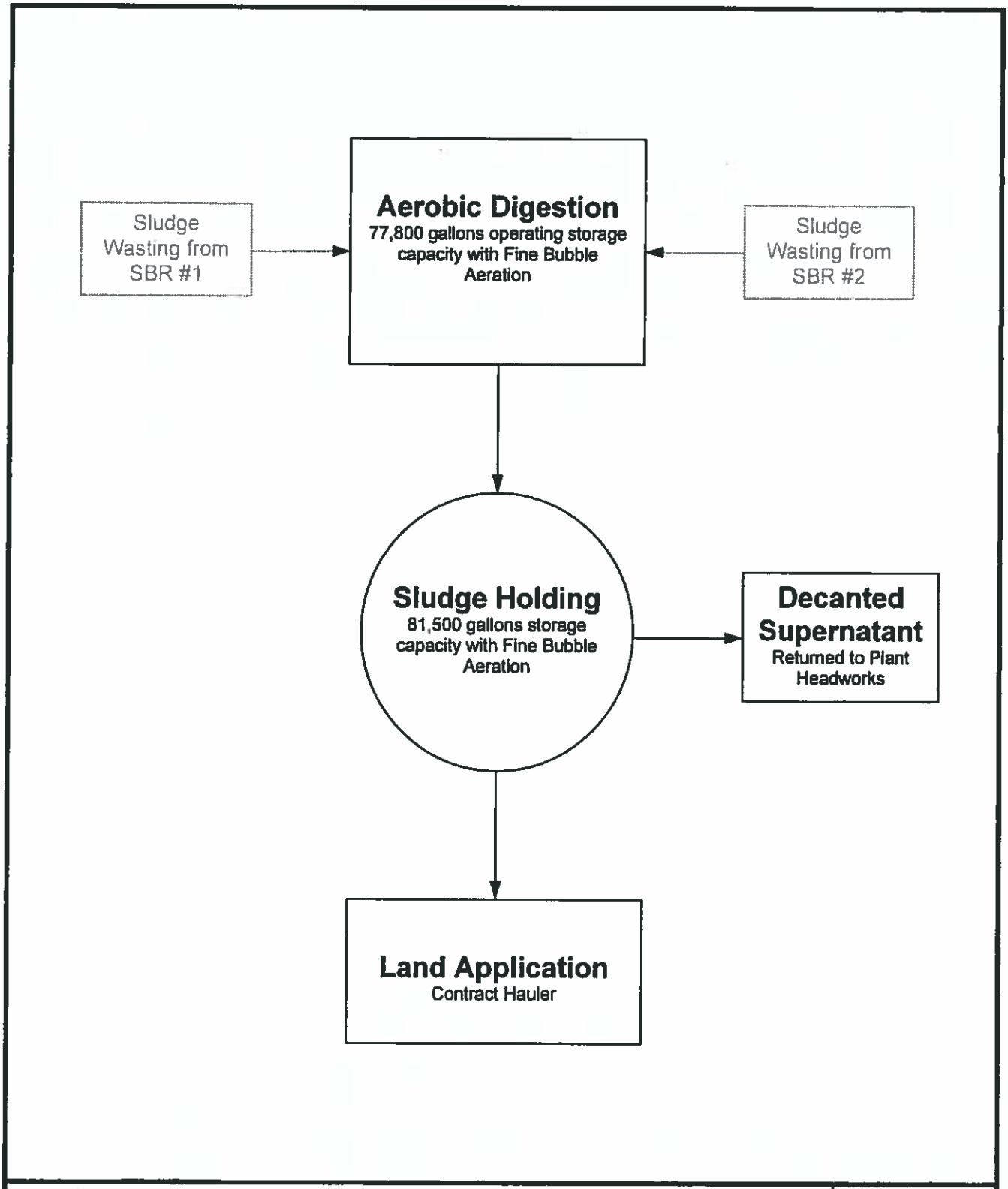
_____, the Permittee, agrees to apply biosolids on the Landowner's land in the manner authorized by the VPDES Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia.

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

☐ I reviewed the documents assigning signatory authority to the person signing for landowner above. I will make a copy of this document available to DEQ for review upon request. (Do not check this box if the landowner signs this agreement)

_____

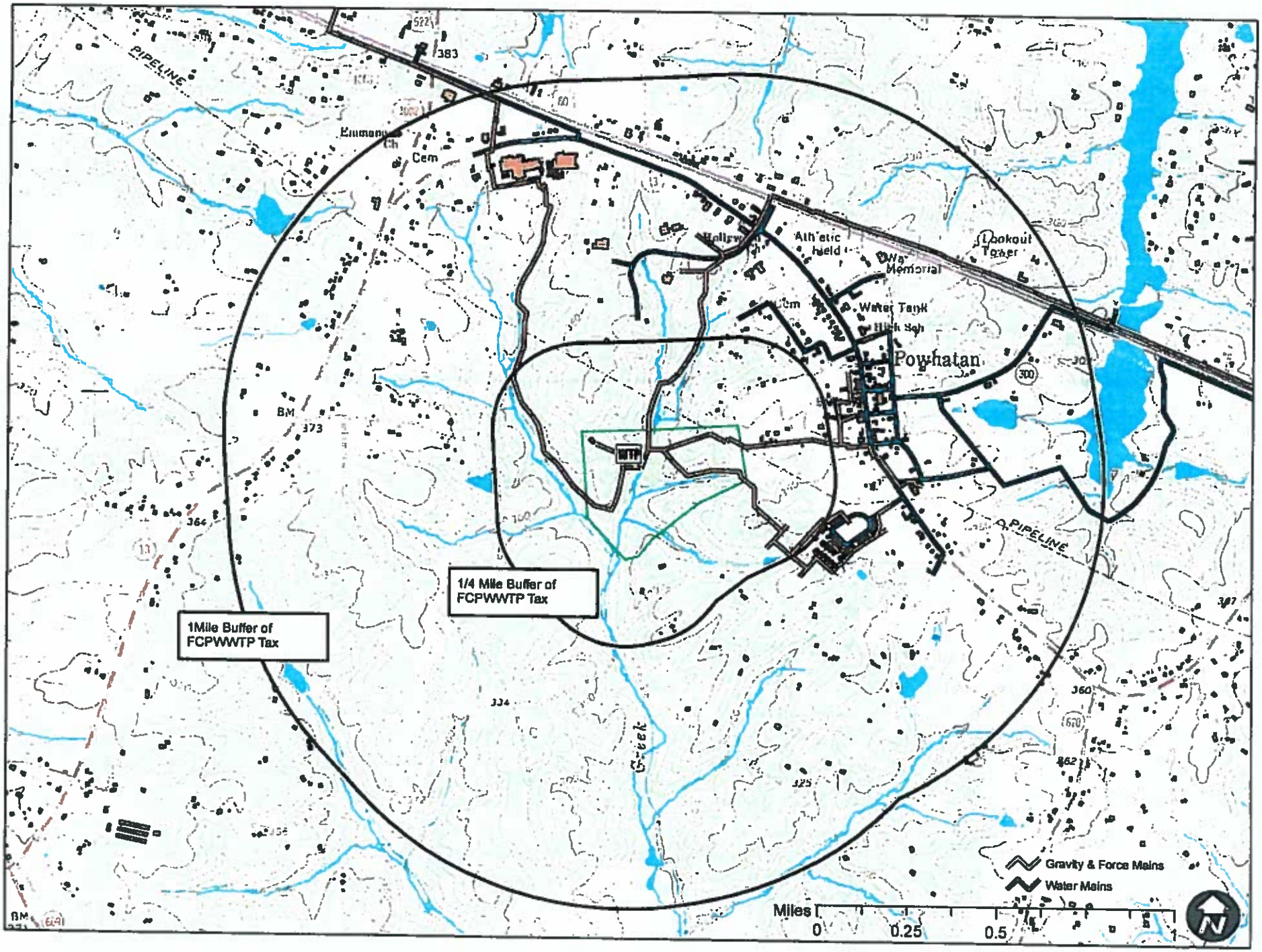
Permittee – Authorized Representative Printed Name Signature Mailing Address



Sludge Process Diagram
Fighting Creek Wastewater Treatment Plant
Powhatan, Virginia

No Scale

Figure 2


1Mile Buffer of FCPWWTP Tax
1/4 Mile Buffer of FCPWWTP Tax
Powhatan
WTP
PIPELINE
Gravity & Force Mains
Water Mains
Miles
0
0.25
0.5
1
N

PERMITTEE NAME/ADDRESS (INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

NAME: *Fighting Creek WWTP*
ADDRESS
2040 ANDERSON HIGHWAY
POWHATAN, VA 23139

FACILITY *3900 OLD PLANTATION RD.*
POWHATAN, VA 23139

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

PERMIT NUMBER				DISCHARGE NUMBER		
VA0089206				S01		
MONTORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
11	*07*	*01*		*12*	*06*	*30*

Municipal Minor 09/14/2001
DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Piedmont Regional Office
4949 - A Cox Road
Glen Allen VA 23060

(804) 527-5020

NOTE: READ PERMIT AND GENERAL INSTRUCTION BEFORE COMPLETING THIS FORM.

PARAMETER		QUANTITY OF LOADING			QUALITY OF CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
672 SOLIDS, TOTAL SLUDGE AS PERCENT	*REPORTED*					*1.2*		*%*	*0*	*6/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	NL	*******	%		1/YEAR	COMP
680 ARSENIC, SLUDGE	*REPORTED*					*<12*	*<12*	*mg/kg*	*0*	*1/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	41	75	MG/KG		1/YEAR	COMP
681 MOLYBDENUM, SLUDGE	*REPORTED*						*<60.1*	*mg/kg*	*0*	*1/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	*******	75	MG/KG		1/YEAR	COMP
682 ZINC, SLUDGE	*REPORTED*					*526*	*526*	*mg/kg*	*0*	*1/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	2800	7500	MG/KG		1/YEAR	COMP
683 LEAD, SLUDGE	**REPORTED**					**20.3**	**20.3**	***mg/kg***	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	300	840	MG/KG		1/YEAR	COMP
684 NICKEL, SLUDGE	*REPORTED*					*<12*	*<12*	*mg/kg*	*0*	*1/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	420	420	MG/KG		1/YEAR	COMP
685 MERCURY, SLUDGE	*REPORTED*					*<0.192*	*<0.192*	*mg/kg*	*0*	*1/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	17	57	MG/KG		1/YEAR	COMP
686 COPPER, SLUDGE	*REPORTED*					*555*	*555*	*mg/kg*	*0*	*1/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	1500	4300	MG/KG		1/YEAR	COMP

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS:

BYPASS AND OVERFLOWS	TOTAL OCCURRENCE	TOTAL FLOW (M.G.)	TOTAL BOD_5 (K.G.)
	-0-	*-0-*	*-0-*

I CERTIFY UNDER PENALITY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VOLATIONS. SEE 18 U.S.C. & 1001 AND 33 U.S.C. & 1319. (PENALTIES UNDER THESE STATUTES MAY INCLUDE FINES UP TO $10,000 AND/OR MAXIMUM IMPRISONMENT OF BETWEEN 6 MONTHS AND 5 YEARS.)

OPERATOR IN RESPONSIBLE CHARGE

Timothy Glidewell	*Timothy Glidewell*	*VA 007509*	*12*	*07*	*25*
TYPE OR PRINT NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO	DAY

PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

Christopher K. Rapp, P.E.	*Christopher K. Rapp*	*(804) 598-5764*	*12*	*07*	*26*
TYPE OR PRINT NAME	SIGNATURE	AREA CODE NUMBER	YEAR	MO	DAY

TELEPHONE

DEQ NPDES FORM 5

PERMITTEE NAME/ADDRESS (INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

NAME: *Fighting Creek WWTP*
ADDRESS
2040 ANDERSON HIGHWAY
POWHATAN, VA 23139

FACILITY *3900 OLD PLANTATION RD.*
POWHATAN, VA 23139

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

PERMIT NUMBER	DISCHARGE NUMBER
VA0089206	S01

MONTORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
11	*07*	*01*		*12*	*06*	*30*

Municipal Minor 09/14/2001
DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Piedmont Regional Office
4949 - A Cox Road
Glen Allen VA 23060

(804) 527-5020

NOTE: READ PERMIT AND GENERAL INSTRUCTION BEFORE COMPLETING THIS FORM

PARAMETER		QUANTITY OF LOADING			QUALITY OF CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
687 CADIMUM, SLUDGE	*REPORTED*					*<12*	*<12*	*mg/kg*	*0*	*1/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	39	85	MG/KG		1/YEAR	COMP
688 LEVEL OF PATHOGEN REQUIREMENTS ACHIEVED	*REPORTED*						*3542*	*FC/per gram*	*0*	*6/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	*******	NL	ALTR #		1/YEAR	COMP
689 DESCRIPTION OF OPTION USED	*REPORTED*					*ALTR # 1*			*0*	*6/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	*******	NL	ALTR #		1/YEAR	COMP
690 VECTOR ATTRACTION REDUCTION OPTION USED	*REPORTED*					*OPTION # 4*			*0*	*6/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	*******	NL	ALTR #		1/YEAR	COMP
697 SELENIUM, SLUDGE	*REPORTED*					*<60.1*	*<60.1*	*mg/kg*	*0*	*1/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	100	100	MG/KG		1/YEAR	COMP
	REPORTED										
	PERMIT REQUIREMENT										
	REPORTED										
	PERMIT REQUIREMENT										
	REPORTED										
	PERMIT REQUIREMENT										

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS:

BYPASS AND OVERFLOWS	TOTAL OCCURRENCE	TOTAL FLOW (M.G.)	TOTAL BOD_5 (K.G.)
	-0-	*-0-*	*-0-*

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OPERATOR IN RESPONSIBLE CHARGE

Timothy Glidewell	*Tim*	*VA 007509*	*12*	*07*	*25*
TYPE OR PRINT NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY

PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

Christopher K. Rapp, P.E.	*Christopher K. Rapp*	*(804) 598-5764*	*12*	*07*	*26*
TYPE OR PRINT NAME	SIGNATURE	AREA CODE NUMBER	YEAR	MO	DAY

TELEPHONE

PERMITTEE NAME/ADDRESS (INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

NAME: *Fighting Creek WWTP*
ADDRESS
2040 ANDERSON HIGHWAY
POWHATAN, VA 23139

FACILITY *3900 OLD PLANTATION RD.*
POWHATAN, VA 23139

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

PERMIT NUMBER				DISCHARGE NUMBER		
VA0089206				SP1		
MONTORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
11	*07*	*01*		*12*	*06*	30

Municipal Minor 09/14/2001
DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Piedmont Regional Office
4949 - A Cox Road
Glen Allen VA 23060

(804) 527-5020

NOTE: READ PERMIT AND GENERAL INSTRUCTION BEFORE COMPLETING THIS FORM.

PARAMETER		QUANTITY OF LOADING			QUALITY OF CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
691 ANNUAL ANT SLUDGE DISPOSED BY OTHER MTDH	*REPORTED*		*NA*						*0*		
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
692 ANNUAL AMT SLUDGE INCINERATED	*REPORTED*		*NA*						*0*		
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
693 ANNUAL SLUDGE PRODUCTION TOTAL	*REPORTED*		*14.66*	*MTNYR*					*0*	*1/YEAR*	*CALC*
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
694 ANNUAL AMT SLUDGE LAND APPLIED	*REPORTED*		*0*	*MTNYR*					*0*	*1/YEAR*	*CALC*
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
695 ANNUAL AMT SLUDGE DISPOSED SURFACE UNIT	*REPORTED*		*NA*						*0*		
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
696 ANNUAL AMT SLUDGE DISPOSED IN LANFILL	*REPORTED*		*NA*						*0*		
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
	REPORTED										
	PERMIT REQUIREMENT										
	REPORTED										
	PERMIT REQUIREMENT										

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS:

BYPASS AND OVERFLOWS	TOTAL OCCURRENCE	TOTAL FLOW (M.G.)	TOTAL BOD_5 (K.G.)
	-0-	*-0-*	*-0-*

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OPERATOR IN RESPONSIBLE CHARGE

Timothy Glidewell	*T Glidewell*	*VA 007509*	*12*	*07*	*25*
TYPE OR PRINT NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY

PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

Christopher K. Rapp, P.E.	*Christopher K. Rapp*	*(804) 598-5764*	*12*	*07*	*26*
TYPE OR PRINT NAME	SIGNATURE	AREA CODE NUMBER	YEAR	MO.	DAY

TELEPHONE

PERMITTEE NAME/ADDRESS (INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

NAME: *Fighting Creek WWTP*
ADDRESS
2040 ANDERSON HIGHWAY
POWHATAN, VA 23139

FACILITY *3900 OLD PLANTATION RD.*
POWHATAN, VA 23139

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

PERMIT NUMBER				DISCHARGE NUMBER		
VA0089206				S01		
MONTORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
12	*07*	*01*		*13*	*06*	*30*

Municipal Minor 09/14/2001
DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Piedmont Regional Office
4949 - A Cox Road
Glen Allen VA 23060

(804) 527-5020

NOTE: READ PERMIT AND GENERAL INSTRUCTION BEFORE COMPLETING THIS FORM.

PARAMETER		QUANTITY OF LOADING			QUALITY OF CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
672 SOLIDS, TOTAL SLUDGE AS PERCENT	*REPORTED*					*0.97*		*%*	*0*	*6/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	NL	*******	%		1/YEAR	COMP
680 ARSENIC, SLUDGE	*REPORTED*					*<0.250*	*<0.250*	*mg/kg*	*0*	*1/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	41	75	MG/KG		1/YEAR	COMP
681 MOLYBDENUM, SLUDGE	*REPORTED*						*<0.250*	*mg/kg*	*0*	*1/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	*******	75	MG/KG		1/YEAR	COMP
682 ZINC, SLUDGE	*REPORTED*					*30.2*	*30.2*	*mg/kg*	*0*	*1/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	2800	7500	MG/KG		1/YEAR	COMP
683 LEAD, SLUDGE	REPORTED					0.703	0.703	*mg/kg*	0	1/Year	Comp
	PERMIT REQUIREMENT	*******	*******		*******	300	840	MG/KG		1/YEAR	COMP
684 NICKEL, SLUDGE	*REPORTED*					*0.566*	*0.566*	*mg/kg*	*0*	*1/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	420	420	MG/KG		1/YEAR	COMP
685 MERCURY, SLUDGE	*REPORTED*					*0.00500*	*0.00500*	*mg/kg*	*0*	*1/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	17	57	MG/KG		1/YEAR	COMP
686 COPPER, SLUDGE	*REPORTED*					*17.8*	*17.8*	*mg/kg*	*0*	*1/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	1500	4300	MG/KG		1/YEAR	COMP

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS:

BYPASS AND OVERFLOWS	TOTAL OCCURRENCE	TOTAL FLOW (M.G.)	TOTAL BOD_5 (K.G.)
	-0-	*-0-*	*-0-*

OPERATOR IN RESPONSIBLE CHARGE

Timothy Glidewell	*T-B*	*VA 007509*	*13*	*07*	*29*
TYPE OR PRINT NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO	DAY

PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

Christopher K. Rapp, P.E.	*Christopher K. Rapp*	*(804) 598-5764*	*13*	*08*	*05*
TYPE OR PRINT NAME	SIGNATURE	AREA CODE NUMBER	YEAR	MO	DAY

TELEPHONE

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PERMITTEE NAME/ADDRESS (INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

NAME: *Fighting Creek WWTP*
ADDRESS
2040 ANDERSON HIGHWAY
POWHATAN, VA 23139

FACILITY *3900 OLD PLANTATION RD.*
POWHATAN, VA 23139

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

PERMIT NUMBER				DISCHARGE NUMBER		
VA0089206				S01		
MONTORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
12	*07*	*01*		*13*	*06*	*30*

Municipal Minor 09/14/2001
DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Piedmont Regional Office
4949 - A Cox Road
Glen Allen VA 23060

(804) 527-5020

NOTE: READ PERMIT AND GENERAL INSTRUCTION BEFORE COMPLETING THIS FORM

PARAMETER		QUANTITY OF LOADING			QUALITY OF CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
687 CADIMUM, SLUDGE	*REPORTED*					*<0.250*	*<0.250*	*mg/kg*	*0*	*1/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	39	85	MG/KG		1/YEAR	COMP
688 LEVEL OF PATHOGEN REQUIREMENTS ACHIEVED	*REPORTED*						*<2.00*	*FC/per gram*	*0*	*1/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	*******	NL	ALTR #		1/YEAR	COMP
689 DESCRIPTION OF OPTION USED	*REPORTED*					*ALTR # 1*			*0*	*1/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	*******	NL	ALTR #		1/YEAR	COMP
690 VECTOR ATTRACTION REDUCTION OPTION USED	*REPORTED*					*OPTION # 4*			*0*	*1/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	*******	NL	ALTR #		1/YEAR	COMP
697 SELENIUM, SLUDGE	*REPORTED*					*<0.250*	*<0.250*	*mg/kg*	*0*	*1/Year*	*Comp*
	PERMIT REQUIREMENT	*******	*******		*******	100	100	MG/KG		1/YEAR	COMP
	REPORTED										
	PERMIT REQUIREMENT										
	REPORTED										
	PERMIT REQUIREMENT										
	REPORTED										
	PERMIT REQUIREMENT										

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS:

BYPASS AND OVERFLOWS	TOTAL OCCURRENCE	TOTAL FLOW (M.G.)	TOTAL BOD_5 (K.G.)
	-0-	*-0-*	*-0-*

OPERATOR IN RESPONSIBLE CHARGE

Timothy Glidewell	*T-W*	*VA 007509*	*13*	*07*	*29*
TYPE OR PRINT NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY

PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

Christopher K. Rapp, P.E.	*Christopher K. Rapp*	*(804) 598-5764*	*13*	*08*	*05*
TYPE OR PRINT NAME	SIGNATURE	AREA CODE NUMBER	YEAR	MO.	DAY

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2040 ANDERSON HIGHWAY
POWHATAN, VA 23139

FACILITY *3900 OLD PLANTATION RD.*
POWHATAN, VA 23139

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

PERMIT NUMBER				DISCHARGE NUMBER		
VA0089206				SP1		
MONTORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
12	*07*	*01*		*13*	*06*	30

Municipal Minor 09/14/2001
DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Piedmont Regional Office
4949 - A Cox Road
Glen Allen VA 23060

(804) 527-5020

NOTE: READ PERMIT AND GENERAL INSTRUCTION BEFORE COMPLETING THIS FORM.

PARAMETER		QUANTITY OF LOADING			QUALITY OF CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
691 ANNUAL ANT SLUDGE DISPOSED BY OTHER MTDH	*REPORTED*		*NA*						*0*		
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
692 ANNUAL AMT SLUDGE INCINERATED	*REPORTED*		*NA*						*0*		
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
693 ANNUAL SLUDGE PRODUCTION TOTAL	*REPORTED*		*20.91*	*MTNY R*					*0*	*1/YEAR*	*CALC*
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
694 ANNUAL AMT SLUDGE LAND APPLIED	*REPORTED*		*6.64*	*MTNY R*					*0*	*1/YEAR*	*CALC*
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
695 ANNUAL AMT SLUDGE DISPOSED SURFACE UNIT	*REPORTED*		*NA*						*0*		
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
696 ANNUAL AMT SLUDGE DISPOSED IN LANFILL	*REPORTED*		*NA*						*0*		
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
	REPORTED										
	PERMIT REQUIREMENT										
	REPORTED										
	PERMIT REQUIREMENT										

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS:

BYPASS AND OVERFLOWS	TOTAL OCCURRENCE	TOTAL FLOW (M.G.)	TOTAL BOD_5 (K.G.)
	-0-	*-0-*	*-0-*

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OPERATOR IN RESPONSIBLE CHARGE

Timothy Glidewell	T. G	*VA 007509*	*13*	*07*	*29*
TYPE OR PRINT NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO	DAY

PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

Christopher K. Rapp, P.E.	Christopher K. Rapp	*(804) 598-5764*	*13*	*08*	*05*
TYPE OR PRINT NAME	SIGNATURE	AREA CODE NUMBER	YEAR	MO	DAY

TELEPHONE

PERMITTEE NAME/ADDRESS (INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

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2040 ANDERSON HIGHWAY
POWHATAN, VA 23139

FACILITY 3900 OLD PLANTATION RD.
POWHATAN, VA 23139

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

PERMIT NUMBER				DISCHARGE NUMBER		
VA0089206				S01		
MONTORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
14	07	01		15	06	30

Municipal Minor 09/14/2001
DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

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Glen Allen VA 23060

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NOTE: READ PERMIT AND GENERAL INSTRUCTION BEFORE COMPLETING THIS FORM.

PARAMETER		QUANTITY OF LOADING			QUALITY OF CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
672 SOLIDS, TOTAL SLUDGE AS PERCENT	**REPORTED**					**1.2**		**%**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	NL	*******	%		1/YEAR	COMP
680 ARSENIC, SLUDGE	**REPORTED**					**<1.59**	**<1.59**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	41	75	MG/KG		1/YEAR	COMP
681 MOLYBDENUM, SLUDGE	**REPORTED**						**<3.97**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	*******	75	MG/KG		1/YEAR	COMP
682 ZINC, SLUDGE	**REPORTED**					**715**	**715**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	2800	7500	MG/KG		1/YEAR	COMP
683 LEAD, SLUDGE	**REPORTED**					**18.6**	**18.6**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	300	840	MG/KG		1/YEAR	COMP
684 NICKEL, SLUDGE	**REPORTED**					**17.4**	**17.4**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	420	420	MG/KG		1/YEAR	COMP
685 MERCURY, SLUDGE	**REPORTED**					**0.167**	**0.167**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	17	57	MG/KG		1/YEAR	COMP
686 COPPER, SLUDGE	**REPORTED**					**617**	**617**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	1500	4300	MG/KG		1/YEAR	COMP

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS:

BYPASS AND OVERFLOWS	TOTAL OCCURRENCE	TOTAL FLOW (M.G.)	TOTAL BOD_5 (K.G.)
	-0-	-0-	-0-

I CERTIFY UNDER PENALITY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VOLATIONS. SEE 18 U.S.C. & 1001 ANA 33 U.S.C. & 1319. (PENALTIED UNDER THESE STATUTES MAY INCLUDE FINES UP TO $10,000 AND/OR MAXIMUM IMPRISONMENT OF BETWEEN 6 MONTHS AND 5 YEARS.)

OPERATOR IN RESPONSIBLE CHARGE

Timothy Glidewell		VA 007509	14	07	03
TYPE OR PRINT NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY

PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT — TELEPHONE

Johnny Mells		(804) 598-5764			
TYPE OR PRINT NAME	SIGNATURE	AREA CODE NUMBER	YEAR	MO.	DAY

PERMITTEE NAME/ADDRESS (INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

NAME: Fighting Creek WWTP
ADDRESS
2040 ANDERSON HIGHWAY
POWHATAN, VA 23139

FACILITY 3900 OLD PLANTATION RD.
POWHATAN, VA 23139

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

PERMIT NUMBER				DISCHARGE NUMBER		
VA0089206				S01		
MONTORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
14	07	01		15	06	30

Municipal Minor 09/14/2001
DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Piedmont Regional Office
4949 - A Cox Road
Glen Allen VA 23060

(804) 527-5020

NOTE: READ PERMIT AND GENERAL INSTRUCTION BEFORE COMPLETING THIS FORM.

PARAMETER		QUANTITY OF LOADING			QUALITY OF CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
687 CADIMUM, SLUDGE	**REPORTED**					**2.32**	**2.32**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	39	85	MG/KG		1/YEAR	COMP
688 LEVEL OF PATHOGEN REQUIREMENTS ACHIEVED	**REPORTED**							**FC/per gram**	**1**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	*******	NL	ALTR #		1/YEAR	COMP
689 DESCRIPTION OF OPTION USED	**REPORTED**					**ALTR # 1**			**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	*******	NL	ALTR #		1/YEAR	COMP
690 VECTOR ATTRACTION REDUCTION OPTION USED	**REPORTED**					**OPTION # 4**	**1.25**	**Mg/L/mi**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	*******	NL	ALTR #		1/YEAR	COMP
697 SELENIUM, SLUDGE	**REPORTED**					**5.49**	**5.49**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	100	100	MG/KG		1/YEAR	COMP
	REPORTED										
	PERMIT REQUIREMENT										
	REPORTED										
	PERMIT REQUIREMENT										
	REPORTED										
	PERMIT REQUIREMENT										

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS: Pathogen sample was not collected.

BYPASS AND OVERFLOWS	TOTAL OCCURRENCE	TOTAL FLOW (M.G.)	TOTAL BOD_5 (K.G.)
	-0-	-0-	-0-

OPERATOR IN RESPONSIBLE CHARGE

Timothy Glidewell		VA 007509	13	07	29
TYPE OR PRINT NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY

PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT — TELEPHONE

Johnny Melis		(804) 598-5764			
TYPE OR PRINT NAME	SIGNATURE	AREA CODE NUMBER	YEAR	MO.	DAY

I CERTIFY UNDER PENALITY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VOLATIONS. SEE 18 U.S.C. & 1001 ANA 33 U.S.C. & 1319. (PENALTIED UNDER THESE STATUTES MAY INCLUDE FINES UP TO $10,000 AND/OR MAXIMUM IMPRISONMENT OF BETWEEN 6 MONTHS AND 5 YEARS.)

PERMITTEE NAME/ADDRESS (INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

NAME: Fighting Creek WWTP
ADDRESS
2040 ANDERSON HIGHWAY
POWHATAN, VA 23139

FACILITY 3900 OLD PLANTATION RD.
POWHATAN, VA 23139

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

Municipal Minor 09/14/2001
DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Piedmont Regional Office
4949 - A Cox Road
Glen Allen VA 23060

(804) 527-5020

NOTE: READ PERMIT AND GENERAL INSTRUCTION BEFORE COMPLETING THIS FORM.

PERMIT NUMBER	DISCHARGE NUMBER
VA0089206	SP1

MONTORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
14	07	01		15	06	30

PARAMETER		QUANTITY OF LOADING			QUALITY OF CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
691 ANNUAL ANT SLUDGE DISPOSED BY OTHER MTDH	**REPORTED**		**NA**						**0**		
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
692 ANNUAL AMT SLUDGE INCINERATED	**REPORTED**		**NA**						**0**		
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
693 ANNUAL SLUDGE PRODUCTION TOTAL	**REPORTED**		**11.35**	**MTNY R**					**0**	**1/YEAR**	**CALC**
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
694 ANNUAL AMT SLUDGE LAND APPLIED	**REPORTED**		**78,000**	**MTNY R**					**0**	**1/YEAR**	**CALC**
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
695 ANNUAL AMT SLUDGE DISPOSED SURFACE UNIT	**REPORTED**		**NA**						**0**		
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
696 ANNUAL AMT SLUDGE DISPOSED IN LANFILL	**REPORTED**		**NA**						**0**		
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
	REPORTED										
	PERMIT REQUIREMENT										
	REPORTED										
	PERMIT REQUIREMENT										

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS:

BYPASS AND OVERFLOWS	TOTAL OCCURRENCE	TOTAL FLOW (M.G.)	TOTAL BOD_5 (K.G.)
	-0-	-0-	-0-

I CERTIFY UNDER PENALITY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VOLATIONS. SEE 18 U.S.C. & 1001 ANA 33 U.S.C. & 1319. (PENALTIED UNDER THESE STATUTES MAY INCLUDE FINES UP TO $10,000 AND/OR MAXIMUM IMPRISONMENT OF BETWEEN 6 MONTHS AND 5 YEARS.)

OPERATOR IN RESPONSIBLE CHARGE

Timothy Glidewell		VA 007509	13	07	29
TYPE OR PRINT NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY

PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT — TELEPHONE

Johnny Melis		(804) 598-5764			
TYPE OR PRINT NAME	SIGNATURE	AREA CODE NUMBER	YEAR	MO.	DAY

PERMITTEE NAME/ADDRESS (INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

NAME: Fighting Creek WWTP
ADDRESS
2040 ANDERSON HIGHWAY
POWHATAN, VA 23139

FACILITY 3900 OLD PLANTATION RD.
POWHATAN, VA 23139

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

PERMIT NUMBER				DISCHARGE NUMBER		
VA0089206				S01		
MONTORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
13	07	01		14	06	30

Municipal Minor 09/14/2001
DEPT OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Piedmont Regional Office
4949 - A Cox Road
Glen Allen VA 23060

(804) 527-5020

NOTE: READ PERMIT AND GENERAL INSTRUCTION BEFORE COMPLETING THIS FORM.

PARAMETER		QUANTITY OF LOADING			QUALITY OF CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
672 SOLIDS, TOTAL SLUDGE AS PERCENT	**REPORTED**					**3.1**		**%**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	NL	*******	%		1/YEAR	COMP
680 ARSENIC, SLUDGE	**REPORTED**					**<0.500**	**<0.500**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	41	75	MG/KG		1/YEAR	COMP
681 MOLYBDENUM, SLUDGE	**REPORTED**						**<0.250**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	*******	75	MG/KG		1/YEAR	COMP
682 ZINC, SLUDGE	**REPORTED**					**39.3**	**39.3**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	2800	7500	MG/KG		1/YEAR	COMP
683 LEAD, SLUDGE	**REPORTED**					**0.919**	**0.919**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	300	840	MG/KG		1/YEAR	COMP
684 NICKEL, SLUDGE	**REPORTED**					**0.845**	**0.845**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	420	420	MG/KG		1/YEAR	COMP
685 MERCURY, SLUDGE	**REPORTED**					**0.312**	**0.312**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	17	57	MG/KG		1/YEAR	COMP
686 COPPER, SLUDGE	**REPORTED**					**25.7**	**25.7**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	1500	4300	MG/KG		1/YEAR	COMP

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS:

BYPASS AND OVERFLOWS	TOTAL OCCURRENCE	TOTAL FLOW (M.G.)	TOTAL BOD_5 (K.G.)
	-0-	-0-	-0-

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VOLATIONS. SEE 18 U.S.C. & 1001 AND 33 U.S.C. & 1319 (PENALTIES UNDER THESE STATUTES MAY INCLUDE FINES UP TO $10,000 AND/OR MAXIMUM IMPRISONMENT OF BETWEEN 6 MONTHS AND 5 YEARS.)

OPERATOR IN RESPONSIBLE CHARGE

Timothy Glidewell		VA 007509	14	07	03
TYPE OR PRINT NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO	DAY

PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT — TELEPHONE

Christopher K. Rapp, P.E.		(804) 598-5764			
TYPE OR PRINT NAME	SIGNATURE	AREA CODE NUMBER	YEAR	MO	DAY

NAME/ADDRESS (INCLUDE
..Y NAME/LOCATION IF DIFFERENT)

NAME: Fighting Creek WWTP
ADDRESS
2040 ANDERSON HIGHWAY
POWHATAN, VA 23139

FACILITY 3900 OLD PLANTATION RD.
POWHATAN, VA 23139

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

PERMIT NUMBER				DISCHARGE NUMBER		
VA0089206				S01		
MONTORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
13	07	01		14	06	30

Municipal Minor 09/14/2001
DEPT OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Piedmont Regional Office
4949 - A Cox Road
Glen Allen VA 23060

(804) 527-5020

NOTE: READ PERMIT AND GENERAL INSTRUCTION BEFORE COMPLETING THIS FORM.

PARAMETER		QUANTITY OF LOADING			QUALITY OF CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
687 CADIMUM, SLUDGE	**REPORTED**					**<0.200**	**<0.200**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	39	85	MG/KG		1/YEAR	COMP
688 LEVEL OF PATHOGEN REQUIREMENTS ACHIEVED	**REPORTED**							FC/per gram	1	1/Year	Comp
	PERMIT REQUIREMENT	*******	*******		*******	*******	NL	ALTR #		1/YEAR	COMP
689 DESCRIPTION OF OPTION USED	**REPORTED**					**ALTR # 1**			**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	*******	NL	ALTR #		1/YEAR	COMP
690 VECTOR ATTRACTION REDUCTION OPTION USED	**REPORTED**					**OPTION # 4**	**0.553**	**Mg/L/mi**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	*******	NL	ALTR #		1/YEAR	COMP
697 SELENIUM, SLUDGE	**REPORTED**					**<0.250**	**<0.250**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	100	100	MG/KG		1/YEAR	COMP
	REPORTED										
	PERMIT REQUIREMENT										
	REPORTED										
	PERMIT REQUIREMENT										
	REPORTED										
	PERMIT REQUIREMENT										

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS: Pathogen sample was not collected.

BYPASS AND OVERFLOWS	TOTAL OCCURRENCE	TOTAL FLOW (M.G.)	TOTAL BOD5 (K.G.)
	-0-	-0-	-0-

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VOLATIONS. SEE 18 U.S.C. & 1001 AND 33 U.S.C. & 1319 (PENALTIES UNDER THESE STATUTES MAY INCLUDE FINES UP TO $10,000 AND/OR MAXIMUM IMPRISONMENT OF BETWEEN 6 MONTHS AND 5 YEARS.)

OPERATOR IN RESPONSIBLE CHARGE

Timothy Glidewell		VA 007509	13	07	29
TYPE OR PRINT NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO	DAY

PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

Christopher K. Rapp, P.E.		(804) 598-5764			
TYPE OR PRINT NAME	SIGNATURE	AREA CODE NUMBER	YEAR	MO	DAY

TELEPHONE

EE NAME/ADDRESS (INCLUDE
NAME/LOCATION IF DIFFERENT)

Fighting Creek WWTP

2040 ANDERSON HIGHWAY
POWHATAN, VA 23139

3900 OLD PLANTATION RD
POWHATAN, VA 23139

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

Municipal Minor 09/14/2001
DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Piedmont Regional Office
4949-A Cox Road
Glen Allen VA 23060

(804) 527-5020

NOTE: READ PERMIT AND GENERAL INSTRUCTION BEFORE COMPLETING THIS FORM.

PERMIT NUMBER				DISCHARGE NUMBER		
VA0089206				SP1		
MONTORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
13	07	01		14	06	30

ETER		QUANTITY OF LOADING			QUALITY OF CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
ANT POSED HDH	REPORTED		NA						0		
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
AMT D	REPORTED		NA						0		
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
SLUDGE N TOTAL	REPORTED		13.83	MTNYR					0	1/YEAR	CALC
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
AMT ND	REPORTED		0	MTNYR					0	1/YEAR	CALC
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
AMT POSED ITE	REPORTED		NA						0		
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
AMT POSED	REPORTED		NA						0		
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
	REPORTED										
	PERMIT REQUIREMENT										
	REPORTED										
	PERMIT REQUIREMENT										

ONAL PERMIT REQUIREMENTS OR COMMENTS:

SS)	TOTAL OCCURRENCE	TOTAL FLOW (M.G.)	TOTAL BOD5 (K.G.)
OWS	-0-	-0-	-0-

PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL ER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR ANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE HE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS. SEE 18 U.S.C. & 1001 AND 33 SALTED UNDER THESE STATUTES MAY INCLUDE FINES UP TO $10,000 AND/OR MAXIMUM OF BETWEEN 6 MONTHS AND 5 YEARS.)

OPERATOR IN RESPONSIBLE CHARGE					
Timothy Glidewell		VA 007509	13	07	29
TYPE OR PRINT NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY
PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE			
Christopher K. Rapp, P.E.		(804) 598-5764			
TYPE OR PRINT NAME	SIGNATURE	AREA CODE NUMBER	YEAR	MO	DAY

PERMITTEE NAME/ADDRESS (INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

NAME: Fighting Creek WWTP
ADDRESS
2040 ANDERSON HIGHWAY
POWHATAN, VA 23139

FACILITY 3900 OLD PLANTATION RD.
POWHATAN, VA 23139

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

PERMIT NUMBER				DISCHARGE NUMBER		
VA0089206				S01		
MONTORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
14	07	01		15	06	30

Municipal Minor 09/14/2001
DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Piedmont Regional Office
4949 - A Cox Road
Glen Allen VA 23060

(804) 527-5020

NOTE: READ PERMIT AND GENERAL INSTRUCTION BEFORE COMPLETING THIS FORM.

PARAMETER		QUANTITY OF LOADING			QUALITY OF CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
672 SOLIDS, TOTAL SLUDGE AS PERCENT	**REPORTED**					**1.2**		**%**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	NL	*******	%		1/YEAR	COMP
680 ARSENIC, SLUDGE	**REPORTED**					**<1.59**	**<1.59**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	41	75	MG/KG		1/YEAR	COMP
681 MOLYBDENUM, SLUDGE	**REPORTED**						**<3.97**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	*******	75	MG/KG		1/YEAR	COMP
682 ZINC, SLUDGE	**REPORTED**					**715**	**715**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	2800	7500	MG/KG		1/YEAR	COMP
683 LEAD, SLUDGE	**REPORTED**					**18.6**	**18.6**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	300	840	MG/KG		1/YEAR	COMP
684 NICKEL, SLUDGE	**REPORTED**					**17.4**	**17.4**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	420	420	MG/KG		1/YEAR	COMP
685 MERCURY, SLUDGE	**REPORTED**					**0.167**	**0.167**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	17	57	MG/KG		1/YEAR	COMP
686 COPPER, SLUDGE	**REPORTED**					**617**	**617**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	1500	4300	MG/KG		1/YEAR	COMP

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS:

BYPASS AND OVERFLOWS	TOTAL OCCURRENCE	TOTAL FLOW (M.G.)	TOTAL BOD_5 (K.G.)
	-0-	-0-	-0-

I CERTIFY UNDER PENALITY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VOLATIONS. SEE 18 U.S.C. & 1001 ANA 33 U.S.C. & 1319. (PENALTIED UNDER THESE STATUTES MAY INCLUDE FINES UP TO $10,000 AND/OR MAXIMUM IMPRISONMENT OF BETWEEN 6 MONTHS AND 5 YEARS.)

OPERATOR IN RESPONSIBLE CHARGE

Timothy Glidewell		VA 007509	14	07	03
TYPE OR PRINT NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY

PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT — TELEPHONE

Johnny Melis		(804) 598-5764			
TYPE OR PRINT NAME	SIGNATURE	AREA CODE NUMBER	YEAR	MO.	DAY

PERMITTEE NAME/ADDRESS (INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

NAME: Fighting Creek WWTP
ADDRESS
2040 ANDERSON HIGHWAY
POWHATAN, VA 23139

FACILITY 3900 OLD PLANTATION RD.
POWHATAN, VA 23139

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

PERMIT NUMBER				DISCHARGE NUMBER		
VA0089206				S01		
MONTORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
14	07	01		15	06	30

Municipal Minor 09/14/2001
DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Piedmont Regional Office
4949 - A Cox Road
Glen Allen VA 23060

(804) 527-5020

NOTE: READ PERMIT AND GENERAL INSTRUCTION BEFORE COMPLETING THIS FORM.

PARAMETER		QUANTITY OF LOADING			QUALITY OF CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
687 CADIMUM, SLUDGE	**REPORTED**					**2.32**	**2.32**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	39	85	MG/KG		1/YEAR	COMP
688 LEVEL OF PATHOGEN REQUIREMENTS ACHIEVED	**REPORTED**							**FC/per gram**	**1**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	*******	NL	ALTR #		1/YEAR	COMP
689 DESCRIPTION OF OPTION USED	**REPORTED**					**ALTR # 1**			**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	*******	NL	ALTR #		1/YEAR	COMP
690 VECTOR ATTRACTION REDUCTION OPTION USED	**REPORTED**					**OPTION # 4**	**1.25**	**Mg/L/mi**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	*******	NL	ALTR #		1/YEAR	COMP
697 SELENIUM, SLUDGE	**REPORTED**					**5.49**	**5.49**	**mg/kg**	**0**	**1/Year**	**Comp**
	PERMIT REQUIREMENT	*******	*******		*******	100	100	MG/KG		1/YEAR	COMP
	REPORTED										
	PERMIT REQUIREMENT										
	REPORTED										
	PERMIT REQUIREMENT										
	REPORTED										
	PERMIT REQUIREMENT										

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS: Pathogen sample was not collected.

BYPASS AND OVERFLOWS	TOTAL OCCURRENCE	TOTAL FLOW (M.G.)	TOTAL BOD_5 (K.G.)
	-0-	-0-	-0-

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OPERATOR IN RESPONSIBLE CHARGE

Timothy Glidewell		VA 007509	13	07	29
TYPE OR PRINT NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY

PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT — TELEPHONE

Johnny Melis		(804) 598-5764			
TYPE OR PRINT NAME	SIGNATURE	AREA CODE NUMBER	YEAR	MO.	DAY

PERMITTEE NAME/ADDRESS (INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

NAME: Fighting Creek WWTP
ADDRESS
2040 ANDERSON HIGHWAY
POWHATAN, VA 23139

FACILITY 3900 OLD PLANTATION RD.
POWHATAN, VA 23139

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

PERMIT NUMBER				DISCHARGE NUMBER		
VA0089206				SP1		
MONTORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
14	07	01		15	06	30

Municipal Minor 09/14/2001
DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Piedmont Regional Office
4949 - A Cox Road
Glen Allen VA 23060

(804) 527-5020

NOTE: READ PERMIT AND GENERAL INSTRUCTION BEFORE COMPLETING THIS FORM.

PARAMETER		QUANTITY OF LOADING			QUALITY OF CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
691 ANNUAL ANT SLUDGE DISPOSED BY OTHER MTDH	**REPORTED**		**NA**						**0**		
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
692 ANNUAL AMT SLUDGE INCINERATED	**REPORTED**		**NA**						**0**		
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
693 ANNUAL SLUDGE PRODUCTION TOTAL	**REPORTED**		**11.35**	**MTNYR**					**0**	**1/YEAR**	**CALC**
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
694 ANNUAL AMT SLUDGE LAND APPLIED	**REPORTED**		**78,000**	**MTNYR**					**0**	**1/YEAR**	**CALC**
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
695 ANNUAL AMT SLUDGE DISPOSED SURFACE UNIT	**REPORTED**		**NA**						**0**		
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
696 ANNUAL AMT SLUDGE DISPOSED IN LANFILL	**REPORTED**		**NA**						**0**		
	PERMIT REQUIREMENT	*******	NL	MTNYR	*******	*******	*******	*******		1/YEAR	CALC
	REPORTED										
	PERMIT REQUIREMENT										
	REPORTED										
	PERMIT REQUIREMENT										

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS:

BYPASS AND OVERFLOWS	TOTAL OCCURRENCE	TOTAL FLOW (M.G.)	TOTAL BOD5 (K.G.)
	-0-	-0-	-0-

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OPERATOR IN RESPONSIBLE CHARGE

Timothy Glidewell		VA 007509	13	07	29
TYPE OR PRINT NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY

PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

Johnny Melis		(804) 598-5764			
TYPE OR PRINT NAME	SIGNATURE	TELEPHONE AREA CODE NUMBER	YEAR	MO.	DAY

AIR WATER & SOIL LABORATORIES, INC.

1941 Reymet Road ● Richmond, Virginia 23237 ● Tel: (804)-358-8295 Fax: (804)-358-8297

Certificate of Analysis

Final Report

Laboratory Order ID 15I0549

Client Name:	Powhatan County Utility-Water & Wastewater Dept. 2040 Anderson Highway Powhatan, VA 23139	Date Received:	September 23, 2015 12:20
		Date Issued:	September 30, 2015 15:41
		Project Number:	[none]
Submitted To:	Timothy Glidewell	Purchase Order:	
Client Site I.D.:	Fighting Creek WWTP		

Enclosed are the results of analyses for samples received by the laboratory on 09/23/2015 12:20. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

Ted Soyars

Laboratory Manager

End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

AIR WATER & SOIL LABORATORIES, INC.

1941 Reymet Road ● Richmond, Virginia 23230 ● Tel: (804)-358-8295 Fax: (804)-358-8297

Certificate of Analysis

Final Report

Laboratory Order ID 15I0549

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Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FC Sludge Tank	15I0549-01	Solids	09/23/2015 08:30	09/23/2015 12:20

Results have been calculated based on dry weight.

AIR WATER & SOIL LABORATORIES, INC.

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Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

Analytical Results

Sample I.D. FC Sludge Tank — **Laboratory Sample ID:** 15I0549-01

Date/Time Sampled: 09/23/2015 08:30 — **PWS ID:** Flat Rock: 4145190

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	01	SW6010C	<1.00 mg/kg dry		1.00	1	09/28/15 14:30	09/30/15 13:37	KEW
Cadmium	01	SW6010C	**1.88 mg/kg dry**		0.200	1	09/28/15 14:30	09/30/15 13:37	KEW
Chromium	01	SW6010C	**31.2 mg/kg dry**		0.500	1	09/28/15 14:30	09/30/15 13:37	KEW
Copper	01	SW6010C	**606 mg/kg dry**		2.50	1	09/28/15 14:30	09/30/15 13:37	KEW
Mercury	01	SW7471B	**0.245 mg/kg dry**		0.035	1	09/29/15 11:00	09/29/15 12:50	AA
Molybdenum	01	SW6010C	<2.50 mg/kg dry		2.50	1	09/28/15 14:30	09/30/15 13:37	KEW
Nickel	01	SW6010C	**14.6 mg/kg dry**		0.500	1	09/28/15 14:30	09/30/15 13:37	KEW
Lead	01	SW6010C	**18.5 mg/kg dry**		0.500	1	09/28/15 14:30	09/30/15 13:37	KEW
Selenium	01	SW6010C	**4.85 mg/kg dry**		2.50	1	09/28/15 14:30	09/30/15 13:37	KEW
Zinc	01	SW6010C	**656 mg/kg dry**		0.500	1	09/28/15 14:30	09/30/15 13:37	KEW
Wet Chemistry Analysis									
Percent Solids	01	SM18 2540G	**2.26 %**		0.10	1	09/25/15 08:42	09/25/15 08:42	RCV

AIR WATER & SOIL LABORATORIES, INC.

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Client Name:	Powhatan County Utility-Water & Wastewater 2040 Anderson Highway Powhatan VA, 23139	Date Received: Date Issued:	September 23, 2015 12:20 September 30, 2015 15:41
Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BYI0641 - SW3050B										
Matrix Spike (BYI0641-MS1)		Source: 15I0549-01		Prepared: 09/28/2015 Analyzed: 09/30/2015						
Selenium	18.1 mg/kg dry	2.50	mg/kg dry	22.1	4.85 mg/kg dry	59.9	75-125			M
Lead	31.3 mg/kg dry	0.500	mg/kg dry	22.1	18.5 mg/kg dry	57.9	75-125			M
Arsenic	14.5 mg/kg dry	1.00	mg/kg dry	22.1	<1.00 mg/kg dry	65.7	75-125			M
Cadmium	15.9 mg/kg dry	0.200	mg/kg dry	22.1	1.88 mg/kg dry	63.5	75-125			M
Molybdenum	12.2 mg/kg dry	2.50	mg/kg dry	22.1	<2.50 mg/kg dry	44.9	75-125			M
Chromium	43.6 mg/kg dry	0.500	mg/kg dry	22.1	31.2 mg/kg dry	55.8	75-125			M
Copper	575 mg/kg dry	2.50	mg/kg dry	22.1	606 mg/kg dry	-139	75-125			M
Zinc	619 mg/kg dry	0.500	mg/kg dry	22.1	656 mg/kg dry	-168	75-125			M
Nickel	27.5 mg/kg dry	0.500	mg/kg dry	22.1	14.6 mg/kg dry	58.3	75-125			M
Matrix Spike Dup (BYI0641-MSD1)		Source: 15I0549-01		Prepared: 09/28/2015 Analyzed: 09/30/2015						
Selenium	20.1 mg/kg dry	2.50	mg/kg dry	22.1	4.85 mg/kg dry	68.7	75-125	10.2	20	M
Arsenic	16.0 mg/kg dry	1.00	mg/kg dry	22.1	<1.00 mg/kg dry	72.1	75-125	9.38	20	M
Copper	680 mg/kg dry	2.50	mg/kg dry	22.1	606 mg/kg dry	335	75-125	16.7	20	M
Nickel	32.0 mg/kg dry	0.500	mg/kg dry	22.1	14.6 mg/kg dry	78.9	75-125	15.3	20	
Cadmium	18.4 mg/kg dry	0.200	mg/kg dry	22.1	1.88 mg/kg dry	74.4	75-125	14.1	20	M
Lead	35.9 mg/kg dry	0.500	mg/kg dry	22.1	18.5 mg/kg dry	78.8	75-125	13.7	20	
Zinc	717 mg/kg dry	0.500	mg/kg dry	22.1	656 mg/kg dry	277	75-125	14.7	20	M
Molybdenum	14.0 mg/kg dry	2.50	mg/kg dry	22.1	<2.50 mg/kg dry	53.1	75-125	13.7	20	M
Chromium	50.7 mg/kg dry	0.500	mg/kg dry	22.1	31.2 mg/kg dry	88.0	75-125	15.1	20	
Batch BYI0644 - SW7471A										
Blank (BYI0644-BLK1)				Prepared & Analyzed: 09/29/2015						
Mercury	<0.008 mg/kg wet	0.008	mg/kg wet							
LCS (BYI0644-BS1)				Prepared & Analyzed: 09/29/2015						
Mercury	0.094 mg/kg wet	0.008	mg/kg wet	0.0996		94.2	80-120			

AIR WATER SOIL LABORATORIES, INC.

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Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BYI0644 - SW7471A										
LCS Dup (BYI0644-BSD1)				Prepared & Analyzed: 09/29/2015						
Mercury	0.099 mg/kg wet	0.008	mg/kg wet	0.0998		99.0	80-120	5.21	20	
Matrix Spike (BYI0644-MS1)		Source: 15I0549-01		Prepared & Analyzed: 09/29/2015						
Mercury	0.750 mg/kg dry	0.036	mg/kg dry	0.445	0.245 mg/kg dry	113	80-120			
Matrix Spike Dup (BYI0644-MSD1)		Source: 15I0549-01		Prepared & Analyzed: 09/29/2015						
Mercury	0.624 mg/kg dry	0.036	mg/kg dry	0.451	0.245 mg/kg dry	84.0	80-120	18.3	20	

AIR WATER SOIL LABORATORIES, INC.

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Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

Wet Chemistry Analysis - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BYI0637 - No Prep Halides										
Blank (BYI0637-BLK1)				Prepared & Analyzed: 09/25/2015						
Percent Solids	100 %	0.10	%							
Duplicate (BYI0637-DUP1)		Source: 15I0461-01		Prepared & Analyzed: 09/25/2015						
Percent Solids	95.2 %	0.10	%		95.4 %			0.173	20	

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Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

Certified Analyses included in this Report

Analyte	Certifications
SW6010C in Solids	
Arsenic	VELAP,NC
Cadmium	VELAP,NC,WVDEP
Chromium	VELAP,NC
Copper	VELAP,NC
Lead	VELAP,NC,WVDEP
Molybdenum	VELAP
Nickel	VELAP,NC
Selenium	VELAP,NC,WVDEP
Zinc	VELAP,NC
SW7471B in Solids	
Mercury	VELAP,WVDEP

Code	Description	Lab Number	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2015
NC	North Carolina DENR	495	12/31/2015
PADEP	NELAC-Pennsylvania	001	10/31/2015
VELAP	NELAC-Virginia Certificate #8065	460021	06/15/2016
WVDEP	West Virginia DEP	350	11/30/2015

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Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

Summary of Data Qualifiers

M	Matrix spike recovery is outside established acceptance limits
RPD	Relative Percent Difference
Qual	Qualifers
-RE	Denotes sample was re-analyzed
D.F.	Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.

AIR WATER & SOIL LABORATORIES, INC.

2109A NORTH HAMILTON STREET
RICHMOND, VIRGINIA 23230
(804) 358-8295 PHONE
(804)358-8297 FAX

CHAIN OF CUSTODY

PAGE ____ OF ____

CLIENT NAME:	County of Powhatan	PROJECT NAME:	Fighting Creek WWTP
CLIENT CONTACT:	Timothy Glidewell	SITE NAME:	
CLIENT ADDRESS:	2040 Anderson Highway, Powhatan VA 23139	PROJECT NUMBER:	
CLIENT PHONE NUMBER:	804-598-5740 ext-1	P.O. NUMBER	
CLIENT FAX NUMBER:	804-598-4253	EMAIL: tglidewell@powhatanva	REGULATORY AUTHORITY: DEQ
Is sample for compliance reporting?	(YES) NO	Is sample from a chlorinated supply?	YES (NO) PWS I.D. #:
SAMPLER NAME (PRINT):	Steve Swift	SAMPLER SIGNATURE:	Turn Around Time: 5 Day(s)
Have ammonia and TKN been verified to be dechlorinated at the time of sampling?	YES NO	MATRIX / COMMENTS	ANALYSIS / (PRESERVATIVE)

CLIENT SAMPLE I.D.	Composite Start Date	Composite Start Time	Grab Date or Composite Stop Date	Grab Time or Composite Stop Date	Number of Containers	Grab	Composite	Field Filtered (Dissolved Metals)	Ground Water / Surface Water	Waste Water / Storm Water	Drinking Water	Soil	Solids	Other	Cadmium, Chromium, Nickel	Selenium, Zinc	Arsenic	Copper	Lead	Mercury	Molybdenum	COMMENTS:
1) FC Sludge Tank			9/23/15	830	1	X				X					X	X	X	X	X	X	X	
2)																						
3)																						
4)																						
5)																						
6)																						
7)																						
8)																						
9)																						
10)																						
11)																						

	DATE / TIME	RECEIVED:	DATE / TIME
RELINQUISHED: TC	9/23/15 1100	RECEIVED: Sam	9/23/15 1140
RELINQUISHED: Sam	9/23/15 1220	RECEIVED: Brian Kell	9/23/15 1220
RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME

QC Data Package
- Level I ☐
- Level II ☐
- Level III ☐
- Level IV ☐

LAB USE ONLY

COOLER TEMP 8.7 °C

PCUWWD
Sludge
Recd: 09/23/2015 Due: 09/30/2015

15I0549

v130325002

AIR WATER SOIL Laboratories Inc.
1941 Reymet Road • Richmond, Virginia 23237 • Tel : (804) 358-8295 Fax: (804) 358-8297

Sample Conditions Checklist

Opened by: (Initials) BK Lab ID No.: 1510549

Date Cooler Opened: 9/23/15

		YES	NO	N/A
1.	How were samples received? Fed Ex ☐ UPS ☐ Courier ☑ Walk In ☐			
2.	Were custody seals used?	☐	☑	☐
3.	If yes, are custody seals unbroken and intact at the date and time of arrival?	☐	☐	☑
4.	Are the custody papers filled out completely and correctly?	☑	☐	☐
5.	Do all bottle labels agree with custody papers?	☑	☐	☐
7.	Is the temperature blank or representative sample within acceptable limits? (above freezing to 6°C)	☐	☑	☐
8.	If NO, are the samples just taken and received on ice?	☑	☐	☐
9.	Are all samples within holding time for requested laboratory tests?	☑	☐	☐
10.	Is a sufficient amount of sample provided to perform the tests indicated?	☑	☐	☐
11.	Are all samples in proper containers for the analyses requested?	☑	☐	☐
12.	Are all samples appropriately preserved for the analyses requested?	☑	☐	☐
13.	Are all volatile organic containers free of headspace?	☐	☐	☑
14.	Are all TOX containers free of headspace?	☐	☐	☑
15.	Is Trip blank provided with each VOC sample set? Circle applicable method: (Document if trip blank is not received with the sample set)	☐	☐	☑

EPA 8011 EPA 504 EPA 8260 EPA 624

RSK-175 EPA 8015 (GRO) EPA 8021

EPA 524 *GRO Wisconsin DNR (water and/or methanol trip blank must be provided)

* See preservation log for Wisconsin soil DRO.

COMMENTS

FOR LAB USE ONLY:

CrVI preserved date/time: _____

Buffer Sol'n ID: _____ Analyst Initials: _____

1N NaOH ID: _____ or 5N NaOH ID: _____

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Certificate of Analysis

Final Report

Laboratory Order ID 15J0501

Client Name:	Powhatan County Utility-Water & Wastewater Dept. 2040 Anderson Highway Powhatan, VA 23139	Date Received:	October 21, 2015 12:15
		Date Issued:	October 28, 2015 14:17
		Project Number:	[none]
Submitted To:	Timothy Glidewell	Purchase Order:	
Client Site I.D.:	Fighting Creek WWTP		

Enclosed are the results of analyses for samples received by the laboratory on 10/21/2015 12:15. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

Ted Soyars

Ted Soyars
Laboratory Manager

End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

ACCREDITED IN ACCORDANCE WITH nelac Commonwealth of Virginia, DCLS Accreditation # 460021

NWBOC EDWOSB CERTIFIED

CERTIFIED SWaM Small, Women and Minority-Owned Supplier Diversity Strengthens the Commonwealth by the Virginia Department of Minority Business Enterprise

AIR WATER & SOIL LABORATORIES, INC.

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Certificate of Analysis

Final Report

Client Name:	Powhatan County Utility-Water & Wastewater 2040 Anderson Highway Powhatan VA, 23139	Date Received:	October 21, 2015 12:15
		Date Issued:	October 28, 2015 14:17
Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 15J0501

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FC Sludge Tank	15J0501-01	Solids	10/21/2015 08:30	10/21/2015 12:15

Results have been calculated based on dry weight.

AIR WATER SOIL LABORATORIES, INC.

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Certificate of Analysis

Final Report

Client Name:	Powhatan County Utility-Water & Wastewater 2040 Anderson Highway Powhatan VA, 23139	Date Received:	October 21, 2015 12:15
		Date Issued:	October 28, 2015 14:17
Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

Laboratory Order ID: 15J0501

Analytical Results

Sample I.D. FC Sludge Tank **Laboratory Sample ID:** 15J0501-01

Date/Time Sampled: 10/21/2015 08:30 **PWS ID:** Flat Rock: 4145190

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	01	SW6010C	<48.0 mg/kg dry		48.0	1	10/22/15 10:30	10/22/15 19:36	BG
Cadmium	01	SW6010C	<9.60 mg/kg dry		9.60	1	10/22/15 10:30	10/22/15 19:36	BG
Chromium	01	SW6010C	**152 mg/kg dry**		24.0	1	10/22/15 10:30	10/22/15 19:36	BG
Copper	01	SW6010C	**537 mg/kg dry**		120	1	10/22/15 10:30	10/22/15 19:35	BG
Mercury	01	SW7471B	<0.394 mg/kg dry		0.394	1	10/27/15 16:30	10/28/15 11:33	CGT
Molybdenum	01	SW6010C	<120 mg/kg dry		120	1	10/22/15 10:30	10/22/15 19:36	BG
Nickel	01	SW6010C	**69.7 mg/kg dry**		24.0	1	10/22/15 10:30	10/22/15 19:36	BG
Lead	01	SW6010C	**69.3 mg/kg dry**		24.0	1	10/22/15 10:30	10/22/15 19:36	BG
Selenium	01	SW6010C	<120 mg/kg dry		120	1	10/22/15 10:30	10/22/15 19:36	BG
Zinc	01	SW6010C	**654 mg/kg dry**		24.0	1	10/22/15 10:30	10/22/15 19:35	BG
Wet Chemistry Analysis									
Percent Solids	01	SM18 2540G	**2.02 %**		0.10	1	10/26/15 11:46	10/26/15 11:46	RCV

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Certificate of Analysis

Final Report

Client Name:	Powhatan County Utility-Water & Wastewater 2040 Anderson Highway Powhatan VA, 23139	Date Received:	October 21, 2015 12:15
		Date Issued:	October 28, 2015 14:17
Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis		**Preparation Method:**	**No Prep Halides**		
15J0501-01	1.00 g / 1.00 mL	SM18 2540G	BYJ0679	SYJ0780	

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods		**Preparation Method:**	**SW3050B**		
15J0501-01	1.03 g / 50.0 mL	SW6010C	BYJ0601	SYJ0730	AJ50116

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods		**Preparation Method:**	**SW7471B**		
15J0501-01	0.503 g / 20.0 mL	SW7471B	BYJ0755	SYJ0890	

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Certificate of Analysis

Final Report

Client Name:	Powhatan County Utility-Water & Wastewater 2040 Anderson Highway Powhatan VA, 23139	Date Received:	October 21, 2015 12:15
		Date Issued:	October 28, 2015 14:17
Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BYJ0601 - SW3050B										
Blank (BYJ0601-BLK1)				Prepared & Analyzed: 10/22/2015						
Molybdenum	<2.50 mg/kg wet	2.50	mg/kg wet							
Selenium	<2.50 mg/kg wet	2.50	mg/kg wet							
Cadmium	<0.200 mg/kg wet	0.200	mg/kg wet							
Chromium	<0.500 mg/kg wet	0.500	mg/kg wet							
Lead	<0.500 mg/kg wet	0.500	mg/kg wet							
Copper	<2.50 mg/kg wet	2.50	mg/kg wet							
Nickel	<0.500 mg/kg wet	0.500	mg/kg wet							
Zinc	<0.500 mg/kg wet	0.500	mg/kg wet							
Arsenic	<1.00 mg/kg wet	1.00	mg/kg wet							
LCS (BYJ0601-BS1)				Prepared & Analyzed: 10/22/2015						
Lead	94.7 mg/kg wet	0.500	mg/kg wet	95.3		99.3	80-120			
Nickel	95.6 mg/kg wet	0.500	mg/kg wet	95.3		100	80-120			
Copper	96.4 mg/kg wet	2.50	mg/kg wet	95.3		101	80-120			
Chromium	96.6 mg/kg wet	0.500	mg/kg wet	95.3		101	80-120			
Cadmium	92.6 mg/kg wet	0.200	mg/kg wet	95.3		97.1	80-120			
Arsenic	92.4 mg/kg wet	1.00	mg/kg wet	95.3		96.9	80-120			
Molybdenum	97.6 mg/kg wet	2.50	mg/kg wet	95.3		102	80-120			
Selenium	89.4 mg/kg wet	2.50	mg/kg wet	95.3		93.8	80-120			
Zinc	91.2 mg/kg wet	0.500	mg/kg wet	95.3		95.7	80-120			
LCS Dup (BYJ0601-BSD1)				Prepared & Analyzed: 10/22/2015						
Chromium	97.9 mg/kg wet	0.500	mg/kg wet	97.2		101	80-120	1.33	20	
Zinc	92.1 mg/kg wet	0.500	mg/kg wet	97.2		94.7	80-120	0.919	20	
Arsenic	93.5 mg/kg wet	1.00	mg/kg wet	97.2		96.2	80-120	1.14	20	
Cadmium	93.4 mg/kg wet	0.200	mg/kg wet	97.2		96.1	80-120	0.877	20	
Lead	96.0 mg/kg wet	0.500	mg/kg wet	97.2		98.8	80-120	1.42	20	
Selenium	89.9 mg/kg wet	2.50	mg/kg wet	97.2		92.5	80-120	0.594	20	
Copper	97.7 mg/kg wet	2.50	mg/kg wet	97.2		101	80-120	1.34	20	
Molybdenum	99.2 mg/kg wet	2.50	mg/kg wet	97.2		102	80-120	1.68	20	
Nickel	96.9 mg/kg wet	0.500	mg/kg wet	97.2		99.7	80-120	1.34	20	

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Certificate of Analysis

Final Report

Client Name:	Powhatan County Utility-Water & Wastewater 2040 Anderson Highway Powhatan VA, 23139	Date Received:	October 21, 2015 12:15
		Date Issued:	October 28, 2015 14:17
Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BYJ0601 - SW3050B										
Matrix Spike (BYJ0601-MS1)	Source: 15J0346-32			Prepared & Analyzed: 10/22/2015						
Copper	117 mg/kg dry	2.76	mg/kg dry	110	<2.76 mg/kg dry	105	75-125			
Chromium	123 mg/kg dry	0.552	mg/kg dry	110	9.55 mg/kg dry	102	75-125			
Cadmium	106 mg/kg dry	0.221	mg/kg dry	110	0.487 mg/kg dry	95.5	75-125			
Arsenic	107 mg/kg dry	1.10	mg/kg dry	110	1.60 mg/kg dry	95.2	75-125			
Selenium	102 mg/kg dry	2.76	mg/kg dry	110	<2.76 mg/kg dry	92.3	75-125			
Zinc	112 mg/kg dry	0.552	mg/kg dry	110	4.48 mg/kg dry	97.3	75-125			
Lead	115 mg/kg dry	0.552	mg/kg dry	110	5.09 mg/kg dry	99.2	75-125			
Nickel	110 mg/kg dry	0.552	mg/kg dry	110	1.37 mg/kg dry	98.7	75-125			
Molybdenum	109 mg/kg dry	2.76	mg/kg dry	110	<2.76 mg/kg dry	98.8	75-125			
Matrix Spike Dup (BYJ0601-MSD1)	Source: 15J0346-32			Prepared & Analyzed: 10/22/2015						
Zinc	118 mg/kg dry	0.578	mg/kg dry	116	4.48 mg/kg dry	98.2	75-125	5.35	20	
Lead	119 mg/kg dry	0.578	mg/kg dry	116	5.09 mg/kg dry	98.8	75-125	3.93	20	
Arsenic	110 mg/kg dry	1.16	mg/kg dry	116	1.60 mg/kg dry	93.9	75-125	3.17	20	
Copper	123 mg/kg dry	2.89	mg/kg dry	116	<2.89 mg/kg dry	105	75-125	4.97	20	
Cadmium	112 mg/kg dry	0.231	mg/kg dry	116	0.487 mg/kg dry	96.3	75-125	5.39	20	
Nickel	116 mg/kg dry	0.578	mg/kg dry	116	1.37 mg/kg dry	99.4	75-125	5.26	20	
Chromium	129 mg/kg dry	0.578	mg/kg dry	116	9.55 mg/kg dry	103	75-125	4.85	20	
Selenium	106 mg/kg dry	2.89	mg/kg dry	116	<2.89 mg/kg dry	91.8	75-125	4.07	20	
Molybdenum	115 mg/kg dry	2.89	mg/kg dry	116	<2.89 mg/kg dry	99.9	75-125	5.67	20	
Batch BYJ0755 - SW7471B										
Blank (BYJ0755-BLK1)				Prepared: 10/27/2015 Analyzed: 10/28/2015						
Mercury	<0.008 mg/kg wet	0.008	mg/kg wet							
LCS (BYJ0755-BS1)				Prepared: 10/27/2015 Analyzed: 10/28/2015						
Mercury	0.088 mg/kg wet	0.008	mg/kg wet	0.0982		90.1	80-120			

AIR WATER SOIL LABORATORIES, INC.

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Certificate of Analysis

Final Report

Client Name:	Powhatan County Utility-Water & Wastewater 2040 Anderson Highway Powhatan VA, 23139	Date Received:	October 21, 2015 12:15
		Date Issued:	October 28, 2015 14:17
Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BYJ0755 - SW7471B										
LCS Dup (BYJ0755-BSD1)				Prepared: 10/27/2015 Analyzed: 10/28/2015						
Mercury	0.089 mg/kg wet	0.008	mg/kg wet	0.0962		92.4	80-120	0.460	20	
Matrix Spike (BYJ0755-MS1)		Source: 15J0346-32		Prepared: 10/27/2015 Analyzed: 10/28/2015						
Mercury	0.105 mg/kg dry	0.008	mg/kg dry	0.105	<0.008 mg/kg dry	99.6	80-120			
Matrix Spike (BYJ0755-MS2)		Source: 15J0346-41		Prepared: 10/27/2015 Analyzed: 10/28/2015						
Mercury	0.120 mg/kg dry	0.008	mg/kg dry	0.106	0.070 mg/kg dry	47.4	80-120			M
Matrix Spike Dup (BYJ0755-MSD1)		Source: 15J0346-32		Prepared: 10/27/2015 Analyzed: 10/28/2015						
Mercury	0.106 mg/kg dry	0.009	mg/kg dry	0.107	<0.009 mg/kg dry	98.5	80-120	0.945	20	
Matrix Spike Dup (BYJ0755-MSD2)		Source: 15J0346-41		Prepared: 10/27/2015 Analyzed: 10/28/2015						
Mercury	0.117 mg/kg dry	0.008	mg/kg dry	0.102	0.070 mg/kg dry	46.1	80-120	2.42	20	M

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Certificate of Analysis

Final Report

Client Name:	Powhatan County Utility-Water & Wastewater 2040 Anderson Highway Powhatan VA, 23139	Date Received:	October 21, 2015 12:15
		Date Issued:	October 28, 2015 14:17
Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

Wet Chemistry Analysis - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BYJ0679 - No Prep Halides										
Blank (BYJ0679-BLK1)				Prepared & Analyzed: 10/26/2015						
Percent Solids	100 %	0.10	%							
Duplicate (BYJ0679-DUP1)		Source: 15J0346-32		Prepared & Analyzed: 10/26/2015						
Percent Solids	85.6 %	0.10	%		86.2 %			0.656	20	

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Certificate of Analysis

Final Report

Client Name:	Powhatan County Utility-Water & Wastewater 2040 Anderson Highway Powhatan VA, 23139	Date Received:	October 21, 2015 12:15
		Date Issued:	October 28, 2015 14:17
Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

Certified Analyses included in this Report

Analyte	Certifications
SW6010C in Solids	
Arsenic	VELAP,NC
Cadmium	VELAP,NC,WVDEP
Chromium	VELAP,NC
Copper	VELAP,NC
Lead	VELAP,NC,WVDEP
Molybdenum	VELAP
Nickel	VELAP,NC
Selenium	VELAP,NC,WVDEP
Zinc	VELAP,NC
SW7471B in Solids	
Mercury	VELAP,WVDEP

Code	Description	Lab Number	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2015
NC	North Carolina DENR	495	12/31/2015
PADEP	NELAC-Pennsylvania	001	10/31/2015
VELAP	NELAC-Virginia Certificate #8074	460021	06/15/2016
WVDEP	West Virginia DEP	350	11/30/2015

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Certificate of Analysis

Final Report

Client Name:	Powhatan County Utility-Water & Wastewater 2040 Anderson Highway Powhatan VA, 23139	Date Received: Date Issued:	October 21, 2015 12:15 October 28, 2015 14:17
Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

Summary of Data Qualifiers

M	Matrix spike recovery is outside established acceptance limits
RPD	Relative Percent Difference
Qual	Qualifers
-RE	Denotes sample was re-analyzed
D.F.	Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.
TIC	Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library. A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.

AIR WATER & SOIL LABORATORIES, INC.

2109A NORTH HAMILTON STREET
RICHMOND, VIRGINIA 23230
(804) 358-8295 PHONE
(804)358-8297 FAX

CHAIN OF CUSTODY

PAGE ____ OF ____

CLIENT NAME:	County of Powhatan	PROJECT NAME:	Fighting Creek WWTP
CLIENT CONTACT:	Timothy Glidewell	SITE NAME:	
CLIENT ADDRESS:	2040 Anderson Highway, Powhatan VA 23139	PROJECT NUMBER:	
CLIENT PHONE NUMBER:	804-598-5740 ext-1	P.O. NUMBER	
CLIENT FAX NUMBER:	804-598-4253	EMAIL: tglidewell@powhatanva.g	REGULATORY AUTHORITY: DEQ
Is sample for compliance reporting?	(YES) NO	Is sample from a chlorinated supply?	YES (NO) PWS I.D. #:
SAMPLER NAME (PRINT):	Steve Swift	SAMPLER SIGNATURE:	Turn Around Time: 5 Day(s)
Have ammonia and TKN been verified to be dechlorinated at the time of sampling?:	YES NO	MATRIX	ANALYSIS / (PRESERVATIVE)

CLIENT SAMPLE I.D.	Composite Start Date	Composite Start Time	Grab Date or Composite Stop Date	Grab Time or Composite Stop Date	Number of Containers	Grab	Composite	Field Filtered (Dissolved Metals)	Ground Water / Surface Water	Waste Water / Storm Water	Drinking Water	Soil	Solids	Other ____	Cadmium, Chromium, Nickel	Selenium, Zinc	Arsenic	Copper	Lead	Mercury	Molybdenum	COMMENTS:
1) FC Sludge Tank			10/21/15	0830	1	X				X					X	X	X	X	X	X	X	
2)																						
3)																						
4)																						
5)																						
6)																						
7)																						
8)																						
9)																						
10)																						
11)																						

RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME	QC Data Package
Swift	10/21 1030	Sam 10/21/15	11:40	Level I ☐
Sam 10/21/15	1215	Brian Rickell	10/21/15 1215	Level II ☐
				Level III ☐
				Level IV ☐

LAB USE ONLY COOLER TEMP 4.8 °C

PCU WWD 15J0501
Sludge
Recd: 10/21/2015 Due: 10/28/2015

15J0501

AIR WATER SOIL
1941 Reymet Road • Richmond, Virginia 23237 • Tel : (804) 358-8295

15J0501

PCUWWD
Sludge

15J0501

Recd: 10/21/2015 Due: 10/28/2015

Sample Conditions Checklist

Opened by: (Initials) IT

Lab ID No.:

Date Cooler Opened: 21 Oct 2015

		YES	NO	N/A
1.	How were samples received? Fed Ex ☐ UPS ☐ Courier ☑ Walk In ☐			
2.	Were custody seals used?	☐	☑	☐
3.	If yes, are custody seals unbroken and intact at the date and time of arrival?	☐	☐	☑
4.	Are the custody papers filled out completely and correctly?	☑	☐	☐
5.	Do all bottle labels agree with custody papers?	☑	☐	☐
7.	Is the temperature blank or representative sample within acceptable limits? (above freezing to 6°C)	☑	☐	☐
8.	If NO, are the samples just taken and received on ice?	☐	☐	☑
9.	Are all samples within holding time for requested laboratory tests?	☑	☐	☐
10.	Is a sufficient amount of sample provided to perform the tests indicated?	☑	☐	☐
11.	Are all samples in proper containers for the analyses requested?	☑	☐	☐
12.	Are all samples appropriately preserved for the analyses requested?	☑	☐	☐
13.	Are all volatile organic containers free of headspace?	☐	☐	☑
14.	Are all TOX containers free of headspace?	☐	☐	☑
15.	Is Trip blank provided with each VOC sample set? Circle applicable method: (Document if trip blank is not received with the sample set)	☐	☐	☑

EPA 8011 EPA 504 EPA 8260 EPA 624

RSK-175 EPA 8015 (GRO) EPA 8021

EPA 524 *GRO Wisconsin DNR (water and/or methanol trip blank must be provided)

* See preservation log for Wisconsin soil DRO.

COMMENTS

FOR LAB USE ONLY:

CrVI preserved date/time: _____

Buffer Sol'n ID: _____ Analyst intials: _____

1N NaOH ID: _____ or 5N NaOH ID: _____

AIR WATER & SOIL LABORATORIES, INC.

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Certificate of Analysis

Final Report

Laboratory Order ID 15K0599

Client Name:	Powhatan County Utility-Water & Wastewater Dept. 2040 Anderson Highway Powhatan, VA 23139	Date Received:	November 24, 2015 12:50
		Date Issued:	December 8, 2015 15:28
		Project Number:	[none]
Submitted To:	Timothy Glidewell	Purchase Order:	
Client Site I.D.:	Fighting Creek WWTP		

Enclosed are the results of analyses for samples received by the laboratory on 11/24/2015 12:50. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

Ted Soyars

Laboratory Manager

End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

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Certificate of Analysis

Final Report

Client Name:	Powhatan County Utility-Water & Wastewater 2040 Anderson Highway Powhatan VA, 23139	Date Issued:	12/8/2015 15:28
Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 15K0599

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FC Sludge Tank	15K0599-01	Solids	11/24/2015 09:45	11/24/2015 12:50

Results have been calculated based on dry weight.

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Certificate of Analysis

Final Report

Client Name:	Powhatan County Utility-Water & Wastewater 2040 Anderson Highway Powhatan VA, 23139	Date Issued:	12/8/2015 15:28
Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

Laboratory Order ID: 15K0599

Analytical Results

Sample I.D. FC Sludge Tank **Laboratory Sample ID:** 15K0599-01

Date/Time Sampled: 11/24/2015 09:45 **PWS ID:** Flat Rock: 4145190

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	01	SW6010C	<42.2 mg/kg dry		42.2	1	12/01/15 10:30	12/07/15 16:25	CGT
Cadmium	01	SW6010C	<8.45 mg/kg dry		8.45	1	12/01/15 10:30	12/07/15 16:25	CGT
Chromium	01	SW6010C	**165 mg/kg dry**		21.1	1	12/01/15 10:30	12/07/15 16:25	CGT
Copper	01	SW6010C	**595 mg/kg dry**		106	1	12/01/15 10:30	12/07/15 16:24	CGT
Mercury	01	SW7471B	**0.254 mg/kg dry**		0.036	1	12/03/15 09:30	12/03/15 12:20	MWL
Molybdenum	01	SW6010C	<106 mg/kg dry		106	1	12/01/15 10:30	12/07/15 16:26	CGT
Nickel	01	SW6010C	**76.6 mg/kg dry**		21.1	1	12/01/15 10:30	12/07/15 16:25	CGT
Lead	01	SW6010C	<21.1 mg/kg dry		21.1	1	12/01/15 10:30	12/07/15 16:25	CGT
Selenium	01	SW6010C	<106 mg/kg dry		106	1	12/01/15 10:30	12/07/15 16:25	CGT
Zinc	01	SW6010C	**799 mg/kg dry**		21.1	1	12/01/15 10:30	12/07/15 16:25	CGT
Wet Chemistry Analysis									
Percent Solids	01	SM18 2540G	**2.21 %**		0.10	1	12/02/15 15:12	12/02/15 15:12	RCV

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Certificate of Analysis

Final Report

Client Name:	Powhatan County Utility-Water & Wastewater 2040 Anderson Highway Powhatan VA, 23139	Date Issued:	12/8/2015 15:28
Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis		**Preparation Method:**	**No Prep Halides**		
15K0599-01	1.00 g / 1.00 mL	SM18 2540G	BYL0072	SYL0078	

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods		**Preparation Method:**	**SW3050B**		
15K0599-01	1.07 g / 50.0 mL	SW6010C	BYL0024	SYL0222	AL50028

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods		**Preparation Method:**	**SW7471A**		
15K0599-01	5.03 g / 20.0 mL	SW7471B	BYL0098	SYL0119	AL50019

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Certificate of Analysis

Final Report

Client Name:	Powhatan County Utility-Water & Wastewater 2040 Anderson Highway Powhatan VA, 23139	Date Issued:	12/8/2015 15:28
Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BYL0024 - SW3050B										
Blank (BYL0024-BLK1)				Prepared: 12/01/2015 Analyzed: 12/07/2015						
Molybdenum	<2.50 mg/kg wet	2.50	mg/kg wet							
Lead	<0.500 mg/kg wet	0.500	mg/kg wet							
Arsenic	<1.00 mg/kg wet	1.00	mg/kg wet							
Cadmium	<0.200 mg/kg wet	0.200	mg/kg wet							
Selenium	<2.50 mg/kg wet	2.50	mg/kg wet							
Zinc	<0.500 mg/kg wet	0.500	mg/kg wet							
Chromium	<0.500 mg/kg wet	0.500	mg/kg wet							
Nickel	<0.500 mg/kg wet	0.500	mg/kg wet							
Copper	<2.50 mg/kg wet	2.50	mg/kg wet							
LCS (BYL0024-BS1)				Prepared: 12/01/2015 Analyzed: 12/07/2015						
Zinc	83.1 mg/kg wet	0.500	mg/kg wet	91.7		90.7	80-120			
Molybdenum	87.4 mg/kg wet	2.50	mg/kg wet	91.7		95.4	80-120			
Lead	84.7 mg/kg wet	0.500	mg/kg wet	91.7		92.4	80-120			
Copper	88.4 mg/kg wet	2.50	mg/kg wet	91.7		96.4	80-120			
Nickel	84.5 mg/kg wet	0.500	mg/kg wet	91.7		92.2	80-120			
Selenium	78.2 mg/kg wet	2.50	mg/kg wet	91.7		85.3	80-120			
Chromium	86.8 mg/kg wet	0.500	mg/kg wet	91.7		94.7	80-120			
Cadmium	83.7 mg/kg wet	0.200	mg/kg wet	91.7		91.3	80-120			
Arsenic	81.5 mg/kg wet	1.00	mg/kg wet	91.7		88.9	80-120			
LCS Dup (BYL0024-BSD1)				Prepared: 12/01/2015 Analyzed: 12/07/2015						
Molybdenum	90.6 mg/kg wet	2.50	mg/kg wet	94.2		96.3	80-120	3.59	20	
Chromium	90.0 mg/kg wet	0.500	mg/kg wet	94.2		95.6	80-120	3.66	20	
Cadmium	86.5 mg/kg wet	0.200	mg/kg wet	94.2		91.9	80-120	3.38	20	
Arsenic	84.8 mg/kg wet	1.00	mg/kg wet	94.2		90.0	80-120	3.98	20	
Nickel	87.4 mg/kg wet	0.500	mg/kg wet	94.2		92.8	80-120	3.35	20	
Copper	91.1 mg/kg wet	2.50	mg/kg wet	94.2		96.7	80-120	3.03	20	
Lead	87.7 mg/kg wet	0.500	mg/kg wet	94.2		93.1	80-120	3.52	20	
Zinc	85.7 mg/kg wet	0.500	mg/kg wet	94.2		91.1	80-120	3.12	20	
Selenium	80.0 mg/kg wet	2.50	mg/kg wet	94.2		85.0	80-120	2.35	20	

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Certificate of Analysis

Final Report

Client Name:	Powhatan County Utility-Water & Wastewater 2040 Anderson Highway Powhatan VA, 23139	Date Issued:	12/8/2015 15:28
Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BYL0024 - SW3050B										
Matrix Spike (BYL0024-MS1)		**Source: 15K0636-05**			Prepared: 12/01/2015 Analyzed: 12/07/2015					
Molybdenum	150 mg/kg dry	4.38	mg/kg dry	175	<4.38 mg/kg dry	85.5	75-125			
Chromium	180 mg/kg dry	0.875	mg/kg dry	175	21.1 mg/kg dry	90.7	75-125			
Copper	173 mg/kg dry	4.38	mg/kg dry	175	7.79 mg/kg dry	94.1	75-125			
Selenium	143 mg/kg dry	4.38	mg/kg dry	175	<4.38 mg/kg dry	81.9	75-125			
Nickel	169 mg/kg dry	0.875	mg/kg dry	175	16.6 mg/kg dry	86.9	75-125			
Zinc	206 mg/kg dry	0.875	mg/kg dry	175	49.1 mg/kg dry	89.7	75-125			
Cadmium	153 mg/kg dry	0.350	mg/kg dry	175	2.06 mg/kg dry	86.0	75-125			
Lead	163 mg/kg dry	0.875	mg/kg dry	175	11.3 mg/kg dry	86.8	75-125			
Arsenic	149 mg/kg dry	1.75	mg/kg dry	175	<1.75 mg/kg dry	85.4	75-125			
Matrix Spike Dup (BYL0024-MSD1)		**Source: 15K0636-05**			Prepared: 12/01/2015 Analyzed: 12/07/2015					
Cadmium	162 mg/kg dry	0.373	mg/kg dry	187	2.06 mg/kg dry	85.8	75-125	6.08	20	
Selenium	153 mg/kg dry	4.67	mg/kg dry	187	<4.67 mg/kg dry	81.8	75-125	6.32	20	
Arsenic	160 mg/kg dry	1.87	mg/kg dry	187	<1.87 mg/kg dry	85.6	75-125	6.72	20	
Zinc	211 mg/kg dry	0.934	mg/kg dry	187	49.1 mg/kg dry	86.9	75-125	2.54	20	
Chromium	188 mg/kg dry	0.934	mg/kg dry	187	21.1 mg/kg dry	89.2	75-125	4.26	20	
Copper	182 mg/kg dry	4.67	mg/kg dry	187	7.79 mg/kg dry	93.5	75-125	5.49	20	
Molybdenum	158 mg/kg dry	4.67	mg/kg dry	187	<4.67 mg/kg dry	84.6	75-125	5.46	20	
Lead	173 mg/kg dry	0.934	mg/kg dry	187	11.3 mg/kg dry	86.8	75-125	5.98	20	
Nickel	176 mg/kg dry	0.934	mg/kg dry	187	16.6 mg/kg dry	86.2	75-125	5.13	20	
Batch BYL0098 - SW7471A										
Blank (BYL0098-BLK1)					Prepared & Analyzed: 12/03/2015					
Mercury	<0.008 mg/kg wet	0.008	mg/kg wet							
LCS (BYL0098-BS1)					Prepared & Analyzed: 12/03/2015					
Mercury	0.091 mg/kg wet	0.008	mg/kg wet	0.0911		99.9	80-120			

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Certificate of Analysis

Final Report

Client Name:	Powhatan County Utility-Water & Wastewater 2040 Anderson Highway Powhatan VA, 23139	Date Issued:	12/8/2015 15:28
Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BYL0098 - SW7471A										
LCS Dup (BYL0098-BSD1)				Prepared & Analyzed: 12/03/2015						
Mercury	0.101 mg/kg wet	0.008	mg/kg wet	0.0994		101	80-120	10.3	20	
Matrix Spike (BYL0098-MS1)		Source: 15K0552-01		Prepared & Analyzed: 12/03/2015						
Mercury	0.094 mg/kg dry	0.008	mg/kg dry	0.0807	<0.008 mg/kg dry	116	80-120			
Matrix Spike (BYL0098-MS2)		Source: 15L0030-01		Prepared & Analyzed: 12/03/2015						
Mercury	0.129 mg/kg wet	0.008	mg/kg wet	0.0973	0.037 mg/kg wet	95.0	80-120			
Matrix Spike Dup (BYL0098-MSD1)		Source: 15K0552-01		Prepared & Analyzed: 12/03/2015						
Mercury	0.093 mg/kg dry	0.008	mg/kg dry	0.0817	<0.008 mg/kg dry	114	80-120	0.383	20	
Matrix Spike Dup (BYL0098-MSD2)		Source: 15L0030-01		Prepared & Analyzed: 12/03/2015						
Mercury	0.121 mg/kg wet	0.008	mg/kg wet	0.0998	0.037 mg/kg wet	84.7	80-120	6.36	20	

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Certificate of Analysis

Final Report

Client Name:	Powhatan County Utility-Water & Wastewater 2040 Anderson Highway Powhatan VA, 23139	Date Issued:	12/8/2015 15:28
Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

Wet Chemistry Analysis - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BYL0072 - No Prep Halides										
Blank (BYL0072-BLK1)				Prepared & Analyzed: 12/02/2015						
Percent Solids	100 %	0.10	%							
Duplicate (BYL0072-DUP1)		Source: 15K0626-01		Prepared & Analyzed: 12/02/2015						
Percent Solids	77.7 %	0.10	%		92.7 %			17.6	20	
Duplicate (BYL0072-DUP2)		Source: 15L0005-01		Prepared & Analyzed: 12/02/2015						
Percent Solids	91.2 %	0.10	%		92.9 %			1.88	20	

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Certificate of Analysis

Final Report

Client Name:	Powhatan County Utility-Water & Wastewater 2040 Anderson Highway Powhatan VA, 23139	Date Issued:	12/8/2015 15:28
Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

Certified Analyses included in this Report

Analyte	Certifications
SW6010C in Solids	
Arsenic	VELAP,NC
Cadmium	VELAP,NC,WVDEP
Chromium	VELAP,NC
Copper	VELAP,NC
Lead	VELAP,NC,WVDEP
Molybdenum	VELAP
Nickel	VELAP,NC
Selenium	VELAP,NC,WVDEP
Zinc	VELAP,NC
SW7471B in Solids	
Mercury	VELAP,WVDEP

Code	Description	Lab Number	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2015
NC	North Carolina DENR	495	12/31/2015
VELAP	NELAC-Virginia Certificate #8074	460021	06/15/2016

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Certificate of Analysis

Final Report

Client Name:	Powhatan County Utility-Water & Wastewater 2040 Anderson Highway Powhatan VA, 23139	Date Issued:	12/8/2015 15:28
Submitted To:	Timothy Glidewell	Project Number:	[none]
Client Site I.D.:	Fighting Creek WWTP	Purchase Order:	

Summary of Data Qualifiers

RPD	Relative Percent Difference
Qual	Qualifers
-RE	Denotes sample was re-analyzed
D.F.	Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.
TIC	Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library. A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.

AIR WATER & SOIL LABORATORIES, INC.

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RICHMOND, VIRGINIA 23230
(804) 358-8295 PHONE
(804)358-8297 FAX

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RICHMOND, VIRGINIA 23230
(804) 358-8295 PHONE
(804)358-8297 FAX

CHAIN OF CUSTODY

PAGE ____ OF ____

CLIENT NAME:	*County of Powhatan*	PROJECT NAME:	*Fighting Creek WWTP*
CLIENT CONTACT:	*Timothy Glidewell*	SITE NAME:	
CLIENT ADDRESS:	*2040 Anderson Highway, Powhatan VA 23139*	PROJECT NUMBER:	
CLIENT PHONE NUMBER:	*804-598-5740 ext-1*	P.O. NUMBER	
CLIENT FAX NUMBER:	*804-598-4253*	EMAIL: tglidewell@powhatanva	REGULATORY AUTHORITY: DEQ
Is sample for compliance reporting?	(YES) NO	Is sample from a chlorinated supply?	YES (NO) PWS I.D. #:
SAMPLER NAME (PRINT):	Steve Swift	SAMPLER SIGNATURE:	Turn Around Time: Day(s)
Have ammonia and TKN been verified to be dechlorinated at the time of sampling?:	YES NO	MATRIX	ANALYSIS / (PRESERVATIVE)

CLIENT SAMPLE I.D.	Composite Start Date	Composite Start Time	Grab Date or Composite Stop Date	Grab Time or Composite Stop Date	Number of Containers	Grab	Composite	Field Filtered (Dissolved Metals)	Ground Water / Surface Water	Waste Water / Storm Water	Drinking Water	Soil	Solids	Other ____	*Cadmium, Chromium, Nickel*	Selenium, Zinc	Arsenic	Copper	Lead	Mercury	Molybdenum	COMMENTS:
1) FC Sludge Tank			11/24/15	9:45	1	X				X					X	X	X	X	X	X	X	
2)																						
3)																						
4)																						
5)																						
6)																						
7)																						
8)																						
9)																						
10)																						
11)																						

	DATE / TIME	RECEIVED:	DATE / TIME
RELINQUISHED: T. Glidewell	11/24/15 1100	Sam 11/24/15	1135
RELINQUISHED: Sam 11/24/15	12:10		11/24/15 1250
RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME

QC Data Package
- Level I ☐
- Level II ☐
- Level III ☐
- Level IV ☐

LAB USE ONLY

COOLER TEMP 3.3 °C

PCUWWD **15K0599**
Sludge
Recd: 11/24/2015 Due: 12/03/2015
v130325002

AIR WATER SOIL
1941 Reymet Road • Richmond, Virginia 23237 • Tel : (804) 358-8295 Fax: (804) 358-8297

Sample Conditions Checklist

Opened by: (Initials) BJC

Lab ID No.: 15K0599

Date Cooler Opened: 11/24/15

		YES	NO	N/A
1.	How were samples received? Fed Ex ☐ UPS ☐ Courier ☑ Walk In ☐			
2.	Were custody seals used?	☐	☑	☐
3.	If yes, are custody seals unbroken and intact at the date and time of arrival?	☐	☐	☑
4.	Are the custody papers filled out completely and correctly?	☑	☐	☐
5.	Do all bottle labels agree with custody papers?	☑	☐	☐
7.	Is the temperature blank or representative sample within acceptable limits? (above freezing to 6°C)	☑	☐	☐
8.	If NO, are the samples just taken and received on ice?	☐	☐	☑
9.	Are all samples within holding time for requested laboratory tests?	☑	☐	☐
10.	Is a sufficient amount of sample provided to perform the tests indicated?	☑	☐	☐
11.	Are all samples in proper containers for the analyses requested?	☑	☐	☐
12.	Are all samples appropriately preserved for the analyses requested?	☑	☐	☐
13.	Are all volatile organic containers free of headspace?	☐	☐	☑
14.	Are all TOX containers free of headspace?	☐	☐	☑
15.	Is Trip blank provided with each VOC sample set? Circle applicable method: (Document if trip blank is not received with the sample set)	☐	☐	☑

EPA 8011 EPA 504 EPA 8260 EPA 624

RSK-175 EPA 8015 (GRO) EPA 8021

EPA 524 *GRO Wisconsin DNR (water and/or methanol trip blank must be provided)

* See preservation log for Wisconsin soil DRO.

COMMENTS

No turn around time notated on COC. Defaulted to Standard 5 day TAT. KLC. 11-25-15

FOR LAB USE ONLY:

CrVI preserved date/time: _____

Buffer Sol'n ID: _____ Analyst initials: _____

1N NaOH ID: _____ or 5N NaOH ID: _____

Odor Control Plan – Fighting Creek WWTP

Facility Name: Fighting Creek WWTP
Address: 3900 Old Plantation Road
City, State: Powhatan, VA 23139

VPDES/NPDES Permit Number:
VA0089206

Contact Name: Timothy Glidewell
Phone Number: (804) 598-5740
Email address: tglidewell@powhatanva.gov

"Malodor" means an unusually strong or offensive odor associated with biosolids or sewage sludge as distinguished from odors commonly associated with biosolids or sewage sludge.

Answer all 4 questions and check all methods that apply OR add alternative methods.

1) Identify methods used to minimize odor during production of biosolids:

√ Vector Attraction Reduction Method: SOUR (Specific Oxygen Uptake Rate)

☐ 38% VSS solids reduction – Treatment minimizes odors through anaerobic digestion to produce Class B biosolids. Digestion detention times and digester temperatures along with volatile solids reduction are monitored to ensure that State and Federal standards are achieved.

☐ Lime Addition: Treatment includes adding sufficient lime to the biosolids to raise the pH to > 12 after two hours and then testing again after an additional 22 hours for a pH greater than 11.5. Lime feed rates and biosolids pH data will be recorded and checked.

Additional procedures (if applicable):

☐ 15 day minimum detention time and a minimum of 95 degrees F in anaerobic digestion will be maintained

√ SOUR testing of biosolids

√ Fecal coliform testing of biosolids

2) Identify methods used to identify malodorous biosolids at the generating facility:

☐ Wastewater treatment facility staff will periodically perform visual as well as odor observations of the biosolids being discharged from the centrifuge or pug mill to ensure that nothing out of the ordinary is occurring during processing operations. If the solids appear to be off color or have unusual odors, these biosolids will be separated from the normal biosolids or sent to landfill.

☐ Volatile solids testing and tracking

√ Wastewater treatment facility staff will periodically observe loading operations to check odor conditions of biosolids

3) Identify methods used to identify and abate malodor after delivery to a land application site (before land application):

☐ The land application contractor's personnel will perform a visual as well as odor observation of biosolids delivered to the land application sites. They will determine if any of the individual loads arriving on-site appear to be more odorous and darker in color than usual. If malodor of the biosolids is present, the contractor will confer with wastewater treatment plant staff and can remove the biosolids and return those loads to the wastewater treatment plant for further treatment or transport to a landfill

☐ Confer with land applicator and utilize a remote land application site

☐ Check pH levels on suspect lime stabilized biosolids

√ Contract land applicator will use methods identified in land applicator's odor control plan

4) Identify methods used to abate malodor after land application:

☐ Incorporate biosolids into the soil

☐ Use a deodorizer

√ Contract land applicator will use methods identified in land applicator's odor control plan

SYNAGRO

May 18, 2012

Brian Craig
Procurement Officer
Powhatan County
3834 Old Buckingham Road, Suite B
Powhatan, VA 23139

Mr. Craig,

Synagro Central, LLC is pleased to respond to Powhatan County's request for Proposal for the disposal of Class B Alternative 2 Sludge from Powhatan, VA Fighting Creek WWTP and Dutoy Creek WWTP. Your consideration for this project is appreciated and we look forward to working with you in the near future.

The Scope of Work is as follows:

Pump aged sludge located in WWTP holding tank into trucks. Approximated 275,000-300,000 gallons of sludge will then be hauled for local land application according to DEQ approved Sludge Management Plan.

Synagro will provide:

- Materials, labor, equipment and supplies for the evacuation, transportation and land application of Class B Alternative Sludge from storage tank

Schedule of Charges:

Evacuation, transportation and landfill application of estimated 275,000-300,000 gallons:	$0.105/gallon
Mobilization/Demobilization of Equipment	$5,000.00 lump sum

Thank you for the opportunity and we look forward to your reply. Should you have any questions or require further information, please do not hesitate to contact me directly at 443-489-9029.

Sincerely,

Mark B. McKenzie
Sales
mmckenzie@synagro.com

Please note this proposal is based on Synagro's standard terms and conditions and shall be strictly non-binding upon Synagro until the parties negotiate and execute a binding contract. This proposal shall not obligate Synagro to negotiate an agreement and any of the terms of the contract shall be subject to Synagro's approval, at its discretion.

SYNAGRO

Materials Management Agreement

This Agreement made and entered into as of July 14, 2014 by and between Contractor and Customer.

CUSTOMER	Customer Legal Name **County of Powhatan Virginia**		
	Street Address **3900 Old Plantation Road**		
	City / Town **Powhatan**	State **VA**	Zip Code **23139**
CONTRACTOR	Synagro Legal Name **Synagro Central, LLC**		
	Street Address **435 Williams Court**		
	City / Town **Baltimore**	State **MD**	Zip Code **21220**
TERM	Commencement Date **July 14, 2014**	Expiration Date **July 13, 2015**	
	The "Term" of this Agreement shall be from the Commencement Date up to and including the Expiration Date. This Agreement may be extended upon the mutual consent of the Parties. This Agreement and any extensions shall automatically renew on a year-to-year basis following expiration of the Term, until Contractor or Customer delivers notice to the other party of its intent to terminate the Agreement. If Contractor provides Contractor Services to Customer outside of the Term without another written agreement, then such services shall be deemed provided pursuant to the terms of this Agreement (other than the Term) and Customer's request for or acceptance of Contractor Services shall be deemed consent to the terms of this Agreement. No such provision of services by Contractor shall be deemed an agreement to provide any further services or extend the term of this contract for additional periods.		
BILLING	Customer Contact Name **Glidewell, Tim**	E-mail Address **tglidewell@powhatanva.gov**	
	Billing Address **3900 Old Plantation Road**	Telephone # **(804) 598-5470 ext.3203**	
		Fax #	
	City / State **Powhatan, VA**	Zip Code **23139**	
SIGNATURES	FOR CUSTOMER **County of Powhatan Virginia**	Date 8/20/2014	
	Signature		
	Name and Title Patricia A. Weiler, County Administrator		
	FOR CONTRACTOR: **Synagro Central, LLC**	Date 8/20/14	
	Signature		
	Name and Title Dir. of Contracts Management/ Assistant Secretary		

APPROVED AS TO FORM:

By: _____ 8-20-14
Powhatan County Attorney — Date

SYNAGRO **Materials Management Agreement**

SCOPE OF SERVICES AND PRICING APPENDIX

Scope of Service.
Synagro to provide:

- Biosolids management services that include removal, transportation and land application or other beneficial reuse in accordance with the terms of Agreement of Customer's biosolids which constitute primarily liquid (2-3% solids) residue generated during the treatment of the waste water works generated by the Dutoy Creek & Fighting Creek WWTP's, located in Powhatan County, VA.
- Remove biosolids within four weeks' notice by the Owner.
- Maintain authorizations and landowner agreements required for land application services.
- Apply biosolids as required by all governmental agencies.
- Develop and implement monitoring, record keeping and reporting programs as required by legal requirements.
- Composite Samples as needed.

Owner to provide:

- Synagro with approximately 210,000 gallons of biosolids generated at the plant for off-site beneficial reuse.
- Reasonable access to the Owner's residuals delivery system, except as reasonable required for safety or emergency considerations or planned shutdown of the plant(s).
- Non- hazardous biosolids that do not contain hazardous materials or polychlorinated biphenyls.
- Synagro four weeks' notice of when the customer desires Synagro to remove biosolids from the plant.
- Notify Synagro of any changes or conditions which could reasonably affect Synagro's operation for land application
- Odor Control Plan and signatures for all necessary forms including the NANI forms.
- TCLP as needed to include PCB testing.
- Washdown water as needed.

Customer Materials.

Customer Materials shall consist of the following:

- Liquid Biosolids, 2-3% total solids (Approximately 210,000 gallons)

Method of Delivery of Customer Materials. The Customer Material shall be delivered to Contractor in the following manner:

- Synagro will pump the material from the storage tanks at the two WWTPs.

"Customer Facility(ies) " shall mean the following locations where Customer Material(s) are generated or stored:

- Dutoy Creek WWTP
- Fighting Creek WWTP

Contractor right to refuse loads. If trucks or containers are loaded by Customer or its agents, Contractor has the right to refuse loads that are not within legal weight restrictions, are defective, or are not filled to mutually agreed-upon minimums or maximums.

PRICE

The Agreement Price(s) shall be as follows:

RATE	UNIT	ESTIMATED QUANTITY	SERVICE
$0.1080	Gallon	210,000	Liquid Land Application
$5,100.0000	Event	1	Mobilization

SYNAGRO

Materials Management Agreement

GENERAL TERMS AND CONDITIONS

1. **Definitions**. As used in this Agreement:

A. "Affiliate" shall mean any Person which, directly or indirectly, owns or controls, or is under common ownership or control with, or is owned or controlled by, such Person.

B. "Agreement" shall mean this agreement, and each and every exhibit, appendix and schedule attached hereto, and by reference made part of this Agreement.

C. "Agreement Price(s)" shall mean any one or, collectively, all the prices to be paid by the Customer to Contractor for Contractor Services.

D. "Authorizations" means all authorizations, permits, applications, notices of intent, registrations, variances, and exemptions required for the removal, transportation and land application of Customer Materials in compliance with all Laws.

E. Agreement shall consist of the following documents which Customer acknowledges receiving copies of:

1. The Agreement
2. Scope of Service and Price Appendix
3. General Terms and Conditions

F. "Contractor Facility" shall mean a facility operated or controlled by Contractor or an Affiliate of Contractor.

G. "Contractor Services" shall be those services described in Scope of Service and Price Appendix.

H. "Customer" shall mean the entity identified as Customer in the first paragraph of this Agreement and its permitted successors and assigns.

I. "Customer Material(s)" shall mean the materials generated by or stored at the Customer's Facility which are described in Scope of Service and Price Appendix, Section A. 2. and meet(s) the requirements set forth in Appendix 2.

J. "Governmental Authority" means any governmental authority including the United States of America and any State, local authority, political subdivision, agency, department, commission, board, bureau, court, tribunal having jurisdiction over this Agreement, Customer Material(s), or Contractor, Customer, or Customer Facility.

K. "Hazardous Materials" means any "petroleum," "oil," "hazardous waste," "hazardous substance," "toxic substance," and "extremely hazardous substance" as such terms are defined, listed, or regulated under Laws.

L. "Intended Use" shall mean any use, placement or disposal of Customer Materials pursuant to this Agreement including by example, land application, composting, deposit in landfill, or incineration.

M. "Laws" means any Authorization and any applicable federal, state, or local law, rule, regulation, ordinance, order, decision, principle of common law, consent decree or order, of any Governmental Authority, now or hereafter in effect.

N. "Non-Conforming Material(s)" shall mean material(s) which (i) fail(s) to meet the description or characteristics described in Appendices 1and/or 2, or (ii) are Hazardous Materials, or (iii) contain a concentration of polychlorinated biphenyls equal to or greater than 50 milligrams per kilogram of total solids (on a dry weight basis).

O. "Party" shall mean either Customer or Contractor; "Parties" shall mean Customer and Contractor.

P. "Person" shall mean any partnership, corporation, Governmental Authority, trust or legal entity, as well as a natural person.

Q. "Term" shall mean the term of this Agreement including any extensions, as provided for in the Agreement.

2. **Services**.Contractor shall provide Contractor Services to Customer.

3. **Price and Adjustments**.

A. The Agreement Price(s) for Contractor Services is set forth in Scope of Services and Price.

B. Contractor will have no duty to handle Non-Conforming Materials unless Customer and Contractor mutually agree to terms including cost for the handling of such Non-Conforming Materials on a case-by-case basis. If Contractor discovers material is Non-Conforming after it takes possession, then Customer shall reimburse all costs and expenses of Contractor in handling such Non-Conforming Material until Customer arranges for removal and transportation of such Non-Conforming Material for appropriate processing and disposal, plus 10% of such costs and expenses.

4. **Ownership of Materials**. Customer shall retain all title to and ownership of the Customer Material and Non-Conforming Materials.

5. **Rejection or Revocation of Acceptance of Materials**.

A. Contractor shall have the right to reject any Non-Conforming Material prior to taking possession or revoking its acceptance after taking possession of any Non-Conforming Material, provided that Contractor notifies Customer by telephone or in writing of such rejection of Non-Conforming Materials promptly upon Contractor's discovery thereof. Any such notice of rejection not given initially in writing shall be promptly confirmed in writing to Customer. Contractor shall provide Customer with the documentation used to identify Customer Materials as Non-Conforming, and Customer shall have the right to re-test the Customer Materials.

B. Within twenty-four (24) hours after receipt of notice of rejection of Non-Conforming Material (or such longer period provided that Customer is acting with due diligence). Customer shall in accordance with Laws, arrange for and pay all costs associated with the testing, removal and transport of such Non-Conforming Material for appropriate processing and disposal. If Customer fails to remove Non-Conforming Material(s) within 10 business days of the date Customer is notified by Contractor, then Contractor shall have the right, but not the obligation, to remove, store, handle, transport, store, process and dispose of Non-Conforming Materials and Customer shall reimburse Contractor for all costs and expenses associated therewith, plus 10% of such costs and expenses.

C. Nothing in this section shall be construed to limit Customer's obligation to indemnify Contractor.

6. **Change in Conditions Affecting Quality of Materials**. Customer shall immediately notify Contractor of changes or irregularities related to the creation, processing or conditions that would reasonably be expected to affect the quality, character or composition of Customer Materials. Customer shall promptly furnish to Contractor any information regarding known or suspected changes in the composition or characteristics of the Customer Materials.

7. **Record Keeping**. Contractor shall maintain records of the Contractor Services to the extent Contractor is required by Law, and further, shall maintain records to the extent specifically set forth in Scope of Services and Price. Customer shall maintain records to the extent Customer is required by Law. Customer shall keep and maintain records showing all data necessary for computation of the invoiced amounts during the term of the Agreement and for eighteen (18) months after the termination of the Agreement. Customer shall, upon reasonable notice from Contractor, allow Contractor to inspect and copy all records reasonably necessary for Contractor to compute the amounts to be invoiced.

8. **Terms of Payment**. Customer shall pay Contractor the full amount due under any invoice within thirty (30) days of the date of the invoice. Any invoice amount not paid in full within thirty (30) days of the date of the invoice shall bear interest at the lesser of: (i) one and one-half percent (1.5%) per month; or (ii) the maximum legally permissible interest rate on any unpaid balance thereof. Interest shall be computed from the date of the invoice.

9. **Default Termination**.

A. In the event a Party seeks to terminate this Agreement because the other Party has failed to perform one or more of its material obligations hereunder, then the non-defaulting Party shall give a default notice to the defaulting party. Such default notice shall list with reasonable detail the nature of the default. Unless otherwise stated in Subsection B below, a defaulting Party shall have a right to cure a default within 10 days. If the defaulting Party fails to cure the default within 10 days after the receipt of the default notice, then this Agreement may be terminated by the non-defaulting party by delivery of notice of termination, effective on the termination date stated in in such termination notice.

B. Notwithstanding any provision herein to the contrary, Contractor may immediately terminate this Agreement upon notice to Customer if:

(i) Customer fails to make full payment within 30 days of any invoice date;

(ii) there is a change in or to the interpretation of any Laws which increases Contractor's risk or cost, or which would serve to delay Contractor's performance of Contractor Services;

(iii) Contractor reasonably determines that performing Contractor Services will cause personal injury, or damage to a Party's facilities, equipment or operation, or will cause Contractor to be in violation of Laws, or will produce or cause to be produced a process byproduct that is classified as Hazardous Material(s); or

(iv) Customer fails to provide the NANI or NANI Equivalent as provided for in Section 29.A.4.b. of this Agreement.

10. Indemnification.

A. Contractor shall defend, indemnify and hold harmless Customer, its directors, officers and agents from and against any and all claims, suits, actions, proceedings, liabilities, losses, damages, fines, penalties and expenses of every character whatsoever (including, but not limited to, liability for pollution, environmental or natural resource damage or restoration, nuisance, bodily injury, sickness and/or disease, including death, and loss of or damage to property), to the extent proximately caused by Contractor's negligence or breach of this Agreement. If any such suits, actions or proceedings are threatened or commenced, Customer shall promptly notify Contractor.

*** See note on bottom of page 5 ***

B. Customer shall defend, indemnify and hold harmless Contractor, its partners, directors, officers, employees and agents from and against any and all claims, suits, actions, proceedings, liabilities, losses, damages, fines, penalties and expense of every character whatsoever (including, but not limited to, liability for pollution, environmental or natural resource damage or restoration, nuisance, bodily injury, sickness and/or disease, including death, and loss of or damage to property), to the extent they arise out of: (i) Customer's failure to comply with any of its obligations under this Agreement; (ii) Customer's delivery of Non-Conforming Material to Contractor; (iii) Contractor's acceptance, handling, use or application of Non-Conforming Material; and (iv) any other negligent act or omission or willful misconduct by Customer. If any such suits, actions or proceedings are threatened or commenced, Contractor shall promptly notify Customer.

11. Access. Customer shall provide Contractor access to Customer Facility(ies) as and when requested by Contractor in order to provide Contractor Services. Customer shall bear all costs or fees associated with providing access to Contractor.

12. Compliance with Laws. Unless otherwise specifically provided in this Agreement, Contractor shall comply with Laws directly regulating Contractor Services and Customer shall comply with all Laws imposed upon.

13. Physical Damage Responsibility; Insurance.

A. Contractor shall provide workers compensation insurance for all its employees providing services under this Agreement in accordance with applicable law.

B. Contractor shall provide commercial general liability insurance to cover the liabilities of Contractor arising out of the Contractor Services with limits of one million dollars ($1,000,000) for each claim, one million dollars ($1,000,000) products aggregate and two million dollars ($2,000,000) general aggregate. Such insurance shall provide that coverage shall not be canceled without thirty (30) days prior notice to Contractor and Customer, or ten (10) days' notice in the event that such coverage is cancelled for non-payment. Contractor shall provide evidence of said insurance, in the form of an insurance certificate, within thirty (30) days from the date hereof. Said certificate shall name Customer as an additional insured.

C. Contractor shall provide general liability and property damage insurance to cover the liabilities of Contractor arising out of the use of vehicles in in the performance of Contractor Services with a combined single limit of one million dollars ($1,000,000), with an umbrella policy of five million dollars ($5,000,000).

14. Force Majeure. Neither Party shall be liable to the other Party for breach or delay in the performance of its obligations hereunder caused by any act or occurrence beyond its reasonable control, including, but not limited to, fires, strikes (except any strikes involving a Party's personnel), orders or judgments of any Federal, State or local court, administrative agency or governmental body, accidents and Acts of God. It is specifically understood that, without limitation, none of the following acts, events or circumstances shall constitute an act or occurrence beyond a Party's reasonable control: (i) reasonably anticipated weather conditions normal for the region in which the work is performed or (ii) any failure to pay any sums in accordance with the terms of this Agreement. Whenever the provisions of this Section are believed to apply, the Party relying thereon shall give prompt notice to the other Party of the circumstances, the basis for applicability of this Section and the time required to cure such breach or delay and Contractor and Customer shall use reasonable best efforts to agree on appropriate mitigating actions under the circumstances.

15. Representation of Authority. Each person signing this Agreement represents and warrants that he or she is duly authorized and has legal capacity to execute and deliver and perform this Agreement. Each Party represents and warrants to the other that the execution and delivery of the Agreement and the performance of such Party's obligations hereunder have been duly authorized and that the Agreement is a valid and legal agreement binding on such Party and enforceable in accordance with its terms.

16. Survival of Obligations. Notwithstanding the expiration or sooner termination of this Agreement, any duty or obligation which has been incurred and which has not been fully observed, performed and/or discharged, and any right, conditional or unconditional, which has been created and has not been fully enjoyed, enforced and/or satisfied, shall survive such expiration or termination until such duty or obligation has been fully observed, performed and/or discharged and such right has been fully enjoyed, enforced and/or satisfied.

17. Entire Agreement. This Agreement constitutes the entire agreement of the Parties with respect to the subject matter hereof and supersedes all prior agreements and understandings, both written and verbal, between the Parties with respect to the subject matter hereof.

18. Amendments. This Agreement may be amended from time to time only by an instrument in writing signed by the Parties to this Agreement.

19. Counterparts. This Agreement may be executed in counterparts, which together shall constitute one and the same contract. The Parties may execute more than one copy of this Agreement, each of which shall constitute an original.

20. Assignment. This Agreement shall be binding upon and inure to the benefit of the Parties thereto and their successors and permitted assigns. The Agreement may not be assigned by either Party without the prior written consent of the other Party, which consent shall not be unreasonably withheld or delayed, except that Contractor may assign performance and/or collection to an Affiliate of Contractor without the consent of Customer.

21. Modification. This Agreement may not be amended, altered or modified except in writing signed by the Parties hereto. No waiver by either Party of any breach by the other Party of any provisions of this Agreement shall be construed as a waiver of any subsequent breach, whether of the same or of any different provision of this Agreement. No course of conduct or series of dealings shall constitute a waiver hereunder.

22. Governing Law, Venue Selection. This Agreement shall be governed by and construed under the laws of the State or Commonwealth of Virginia.

23. No Third Party Liability. Neither this Agreement nor any Subcontract is intended to give rise to or recognize any third party beneficiary to this Agreement.

24. Partial Invalidity. If any provision of this Agreement is determined to be invalid, illegal or unenforceable for any reason, that provision shall be deleted from this Agreement and such deletion shall in no way affect, impair, or invalidate any other provision of this Agreement, unless it was material to the consideration for the performance required. If a provision is deleted which is not material to such consideration, the remaining provisions shall be given the force and effect originally intended.

25. Consent to Breach Not Waiver. No term or provision hereof shall be deemed waived and no breach excused, unless such waiver or consent is in writing and signed by the Party claimed to have waived or consented. No consent by any Party to, or waiver of, a breach by the other Party shall constitute consent to, waiver of, or excuse of any other different or subsequent breach.

26. Notice. Except as otherwise specifically provided in this Agreement, all notices must be given in writing sent by recognized overnight courier or registered or certified US mail, postage prepaid, return receipt requested, addressed listed on the first page and with an additional copy of any notice to Contractor sent to:

Synagro Central, LLC
435 Williams Court, Suite 100
Baltimore, MD 21220
Attn: Legal Manager

Notice shall be sent to the referenced persons and addresses unless the Parties are otherwise notified in writing of a change in the name or address of the person to be notified.

27. Consequential Damages. In no event shall Contractor, its affiliated corporations and Affiliates or its and their directors, officers, employees or any of its subcontractors be liable for any incidental, indirect, special, punitive, economic or consequential damages, suffered or incurred by Customer or any of its agents or contractors as a result of Contractor's performance or non-performance of services pursuant to this Agreement. In no event shall Contractor's liability hereunder exceed the value of the payments to Contractor under this Agreement, regardless of legal theory.

28. Drafting Responsibility. Neither Contractor nor Customer shall be considered the drafter of this Agreement, and any ambiguities herein shall not be construed against either Contractor or Customer, both having participated in the drafting of this Agreement.

29. Customer Materials. Customer represents and warrants the following with respect to the quality of Customer Materials:

A. Biosolids.

1. Hazardous Materials. Customer will not provide Hazardous Materials to Contractor.

2. Polychlorinated Biphenyls. Customer Materials shall not contain a concentration of polychlorinated biphenyls (PCB's) equal to or greater than 50 milligrams per kilogram (dry weight basis), nor shall Customer Materials violate more stringent state or local standards, where applicable.

3. Suitability of Materials for Intended Use. All Customer Materials are suitable for their Intended Use and the qualities and characteristics of Customer Materials meet or exceed the minimum requirements under Laws for Intended Use.

4. Land Application of Biosolids. If land application is an Intended Use of Customer Materials, the following shall apply:

a. Customer agrees to provide Contractor with Customer Materials that meet federal, state and local land application criteria at the time they are released to Contractor. Where Contractor Services include pathogen reduction requirements and/or vector attraction reduction, Customer is not obligated to meet pathogen and/or vector attraction reduction requirements.

b. Customer shall provide Contractor documentation that Customer's biosolids meet 40 CFR PART 503, state and local land application quality criteria with respect to the three biosolids quality criteria (i.e. metals content, pathogen reduction requirements, and vector attraction reduction requirements) unless Contractor has specifically agreed otherwise as part of the Contractor Services described below. This information is to be supplied to Contractor using a Notice and Necessary Information ("NANI") form or NANI Equivalent within 45 days after the end of the Customer's monitoring period based on the biosolids testing frequency in 40 CFR 503.16. "NANI Equivalent" shall mean lab results which clearly show the three biosolids quality criteria are met (e.g. metal test results, fecal coliform test results, SOUR test results). If Customer has more than one Customer Facility, a NANI Form or NANI Equivalent is required for each Customer Facility at which Contractor Services are being provided. If Customer uses more than one treatment process within Customer Facility, (for example, customer produces anaerobically digested and lime stabilized biosolids) a NANI form or NANI Equivalent is required for each treatment process used by the Customer.

If Customer has stored biosolids in more than one location/structure within Customer Facility produced over different time periods or tested separately due to its unique characteristics or Customer's desired sampling program, a NANI form or NANI Equivalent are required for each Customer Facility storage location/structure. Contractor shall have the right to rely upon any information or certification provided by Customer and shall not have any independent duty to investigate or inquire regarding the subject matter of Customer's certification or of the information which Customer provides to Contractor. Where Contractor Services include pathogen reduction requirements, the NANI Form or NANI Equivalent provided Customer is not required to document compliance with pathogen reduction requirements by Law. Where Contractor Services include vector attraction reduction, the NANI Form or NANI Equivalent provided by Customer is not required to document compliance with vector attraction reduction requirements.

c. If Customer fails to provide the NANI Form or NANI Equivalent when required by Law, Contractor shall have the immediate right, but not the obligation, to suspend or terminate Contractor Services or this Agreement. Customer shall be liable for all additional costs and expenses arising out of such suspension or termination. d. Contractor will land apply Customer Materials based on the most current NANI Form or NANI equivalent test results provided to the Contractor.

5. Disposal of Biosolids into Landfill. Where Customer Materials are to be disposed of in landfill(s), Customer Materials must meet the requirements in 40 CFR Part 258 (e.g., pass paint filter test and be non-hazardous per 40 CFR Part 261) and any applicable state requirements

B. Industrial Residuals:

1. Hazardous Materials. Customer will not provide Hazardous Materials to Contractor.

2. Polychlorinated Biphenyls. Customer Materials shall not contain a concentration of polychlorinated biphenyls (PCB's) equal to or greater than 50 milligrams per kilogram (dry weight basis), nor shall Customer Materials violate more stringent state or local standards, where applicable.

3. Suitability of Materials for Intended Use. All Customer Materials are suitable for their Intended Use and the qualities and characteristics of Customer Materials meet or exceed the minimum requirements under Laws for Intended Use.

4. Cadmium. Customer will provide Contractor with the total cadmium (Cd) concentration of the residuals in milligrams per kilograms (mg/kg) dry weight with the frequency required by Laws.

5. Disease Vectors. Customer Materials shall not attract disease vectors that endanger public health.

6. Disposal of Biosolids into Landfill. Where Customer Materials are to be disposed of in landfill(s), Customer Materials must meet the requirements in 40 CFR Part 258 (e.g., pass paint filter test and be non-hazardous per 40 CFR Part 261) and any applicable state requirements.

C. Additional Customer Materials (if any):

*** Item 10 B Indemnification:
This item shall begin with the language "To the extent permitted by law."

Initial Change

SYNAGRO

OCTOBER 2014

LAND APPLICATION MONTHLY REPORT

AMELIA COUNTY

VIRGINIA

Dosage Rate Evaluation Report

Product Type: **POWHATAN COUNTY, VA FIGHTING CREEK WWTP LIQUID (PCFCL)**

Sample Date Usage From **10/1/2014** To **11/30/2014**
Report # 1538 02 LIQ RA 10/14 - 11/14

Parameter	PPM(mg/kg)	Lbs/DryTon
PA-N (Injected)	10048	20.096
PA-N (Surface Appl. Incorp.<=24 Hours)	9675	19.349
PA-N (Surface Appl. Incorp. 1 – 7 Days)	9301	18.602
PA-N (Surface Appl. Incorp. >7 Days or None)	8803	17.606
TKN (TKN)	27100	
Ammonia Nitrogen (Am)	2490	
Nitrate Nitrogen (Nin)	175	
Organic Nitrogen (Orn)	24610	
Total Phosphorus (P)	31600	63.2
Total Potassium (K)	2520	5.04
Arsenic (As)	5	0.01
Cadmium (Cd)	2	0.004
Chromium (Cr)	52	0.104
Copper (Cu)	580	1.16
Lead (Pb)	25	0.05
Mercury (Hg)	<0.4	<0.001
Molybdenum (Mo)	<5	<0.01
Nickel (Ni)	24	0.048
Selenium (Se)	<5	<0.01
Zinc (Zn)	901	1.802
Calcium Carbonate Equivalency (CCE)	<100	<0.2

Percent Solids: 3.61 % *PH Level:* 6.79

Calculations
PA-N (ppm) = [(f1) (ppm Org. N)] + [(V1) (ppm Ammonia N)] + (ppm Nitrate N)
ppm or mg/kg x .002 = lbs/dry ton
Biosolids/Residuals Application State: **VIRGINIA**
Organic Nitrogen Mineralization Rate (f1): For AEROBICALLY DIGESTED **30.00%**
Ammonia Nitrogen Non-Volatilized Fraction (V1): For Injected:**1.00**
For Surface Appl. Incorp.<=24 Hours:**0.85**
For Surface Appl. Incorp. 1 – 7 Days:**0.70**
For Surface Appl. Incorp. >7 Days or None:**0.50**

NR = Data not Reported to Synagro or Data not Required
Notes: RESULT IS FROM A&L EASTERN LABS FROM SEPTEMBER 2014.

RESIDUALS SAMPLING SUMMARY FORM

For Date Sampled Range: 9/1/2014 To 9/30/2014 State VA

Project Name: POWHATAN COUNTY, VA **Plant Name:** FIGHTING CREEK WWTP

Residuals Analysis Data

Control #	60867			
Product Type	LIQ	Minimum	Average	Maximum
Date Sampled	09/16/14			
Total Solids*	3.61	3.61	3.61	3.61
PARAMETERS				
TKN (%)	2.71	2.71	2.71	2.71
Phosphorus (%)	3.16	3.16	3.16	3.16
Potassium (%)	0.252	0.252	0.252	0.252
Sulfur (%)	0.625	0.625	0.625	0.625
Calcium (%)	4.61	4.61	4.61	4.61
Magnesium (%)	1.42	1.42	1.42	1.42
Sodium (%)	0.267	0.267	0.267	0.267
Iron (mg/kg)	30400	30400	30400	30400
Aluminum (mg/kg)	NR			
Manganese (mg/kg)	912	912	912	912
Copper (mg/kg)	580	580	580	580
Zinc (mg/kg)	901	901	901	901
Ammonia-Nitrogen (%)	0.249	0.249	0.249	0.249
Nitrate-Nitrogen (mg/kg)	175	175	175	175
Cadmium (mg/kg)	2	2	2	2
Chromium (mg/kg)	52	52	52	52
Nickel (mg/kg)	24	24	24	24
Lead (mg/kg)	25	25	25	25
Arsenic (mg/kg)	5	5	5	5
Mercury (mg/kg)	<0.4	0.4	0.4	0.4
Selenium (mg/kg)	<5	5	5	5
pH (Std. Units)*	6.79	6.79	6.79	6.79
Calcium Carb. Equiv. (%)	<0.01	0.01	0.01	0.01
Volatile Solids (%)	47.68	47.68	47.68	47.68
Organic Nitrogen (%)	2.461	2.461	2.461	2.461
Molybdenum (mg/kg)	<5	5	5	5

All values are on a dry weight basis except as noted by asterisk.

NR - Data not reported to Synagro Technologies, Inc. or data not required.

Printed: Tuesday - January 27, 2015 at 10:56:22 for: 1538 02

SYNAGRO CENTRAL, LLC
435 WILLIAMS COURT, SUITE 100
BALTIMORE, MD 21220

PROJECT: 1538 - POWHATAN COUNTY, VA
10/1/2014 thru 10/31/2014

PLANT: 02 - FIGHTING CREEK WWTP

Field: VA-AM-00013-0-0014-B
Farmer/Site Operator LEVEL MOUNT FARMS

Date Applied	Total Applied	Unit	Type
10/2/2014	78,000.00	G	LIQ
LIQ Gallons:	**78,000.00**		
Field Total (Gallons):	**78,000.00**		
Plant Total Gallons:	**78,000.00**		

Printed: 1/28/2015
08:15

FIELD REPORT

Synagro Field: VA-AM-00013-0-0014-B

October 2014

Permit No. VPA00813
Landowner(s): CAROLINE M. VAUGHN LEVEL MOUNT FARMS
County: AMELIA
Crop: HAY
Applic. Method: SURFACE APPL INCORP>7 DAYS OR NONE
Soil pH: 6.1

Latitude: 37.23'52"
Longitude: 77.58'54"
Acres: 15.5 (6.28 ha)
Rate: 125 LBS PAN/ACRE

GALLONS APPLIED:	Month to Date:	246,000.00	Year to Date:	438,000.00
WET TONS APPLIED:	Month to Date:	69.02	Year to Date:	69.02
DRY TONS/ACRE APPLIED:	Month to Date:	3.48	Year to Date:	5.17
			Cumulative:	22.43

******** POUNDS PER ACRE APPLIED *******
(Kilograms per Hectare Applied)

PARAMETER	MONTH TO DATE	YEAR TO DATE	CUMULATIVE
PAN	68.86	101.11	
P	143.60	182.47	
K	16.38	27.06	
As	0.03 (0.03)	0.05 (0.06)	0.14 (0.16)
Cd	0.01 (0.01)	0.02 (0.02)	0.09 (0.10)
Cr	0.28 (0.31)	0.50 (0.56)	1.59 (1.78)
Cu	2.86 (3.20)	4.99 (5.59)	14.12 (15.81)
Pb	0.16 (0.18)	0.30 (0.34)	1.17 (1.31)
Hg	0.01 (0.01)	0.03 (0.03)	0.06 (0.07)
Mo	0.04 (0.04)	0.06 (0.07)	0.39 (0.44)
Ni	0.14 (0.16)	0.27 (0.30)	0.85 (0.95)
Se	0.04 (0.04)	0.05 (0.06)	0.17 (0.19)
Zn	5.19 (5.81)	8.54 (9.56)	29.55 (33.10)
CaCO3	951.30 (1065.46)	1111.16 (1244.50)	

DAILY FIELD LOADING SHEET

DATE APPLIED	TYPE	% SOLIDS	AMOUNT	UNIT	DRY TONS
10/01/2014	ACSDL	3.21	96,000.00	GALLONS	13.10
10/02/2014	PCDCL	2.50	72,000.00	GALLONS	7.65
10/02/2014	PCFCL	3.61	78,000.00	GALLONS	11.97
10/06/2014	SCWWALSC	30.72	69.02	WET TONS	21.20

every 2 years

Synagro Field: VA-AM-00013-0-0014-B

DAILY FIELD LOADING SHEET

DATE APPLIED	TYPE	% SOLIDS	AMOUNT	UNIT	DRY TONS
TOTALS:			246,000.00	GALLONS	53.92 DT
TOTALS:			69.02	WET TONS	48.90 MT

"NR" = Data not reported to Synagro Technologies, Inc or Data not required.

Synagro Central, LLC
435 Williams Court, Suite 100
Baltimore, MD 21220
(443) 489-9000

Invoice #: 20-119789
Invoice Date: 10/31/2014
Page: 1

Vendor # 9107

Bill To:
POWHATAN COUNTY, VA
3834 OLD BUCKINGHAM ROAD

POWHATAN VA 23139

Please note our new remittance address below

Purchase Order No.	Customer ID	Sales ID	Payment Terms
OCT 2014	1538		

Plant	Quantity	Description	U of M	Unit Price	Ext. Price
* FIGHTING CREEK WW	78,000.00000	PUMP/TRANSP/ APP OF LIQ MATERIALS	G	0.10800	$8,424.00
DUTOY CREEK WWTI	162,000.00000	PUMP/TRANSP/ APP OF LIQ MATERIALS	G	0.10800	$17,496.00

11/19/14

Acct # 4-501-043400-3145 Amt 25,920.00
Acct # _____ Amt _____
Acct # _____ Amt _____
Approved for Payment Christopher K. Rager Date 11-19-14
Finance _____ Date _____

Please Remit To:

Synagro Central, LLC
c/o SYNAGRO TECHNOLOGIES, INC.
7773 SOLUTION CENTER
CHICAGO IL 60677-7007

Subtotal:	$25,920.00
Misc:	$0.00
Tax:	$0.00
Total:	$25,920.00

For questions regarding this invoice, please call Lauren Grannas at 1-443-489-9108 or e-mail at lgrannas@synagro.com.

SYNAGRO

Finance Charges will be applied to Past Due Invoices

White - Customer Copy Yellow - Customer Copy (Return with Payment) Pink - File Copy

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION
FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS

PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS

A. This land application agreement is made on 3-12-15 between Vaughan Cattle Co LLC referred to here as "Landowner", and Synagro, referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

Landowner:
The Landowner is the owner of record of the real property located in Amelia, Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges

Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
21-A-2	43-A-19A, 19B, 19C	44-A-22D	66-A-4
32-A-106	43-A-19	44-A-28	
43-A-20	44-A-1	57-A-C1-3)	
43-A-21	44-A-3	43-A-18	
44-A-29	43-A-29	43-A-20	

☐ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one: ☑ The Landowner is the sole owner of the properties identified herein.
☐ The Landowner is one of multiple owners of the properties identified herein.

In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, the Landowner shall:

1. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
2. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance with regulatory requirements applicable to such application.

Class B biosolids	Water treatment residuals	Food processing waste	Other industrial sludges
X Yes ☐ No	X Yes ☐ No	X Yes ☐ No	X Yes ☐ No

John W. Vaughan III — 16530 Eggleston
Landowner – Printed Name, Title — Signature — Mailing Address

Caroline M. Vaughan — Caroline M. Vaughan — Rd. Amelia Va.

Permittee:
Synagro, the Permittee, agrees to apply biosolids and/or industrial residuals on the Landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia.

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

X I reviewed the document(s) assigning signatory authority to the person signing for landowner above. I will make a copy of this document(s) available to DEQ for review upon request. (Do not check this box if the landowner signs this agreement)

Leonard Scott — Leonard Scott — 10647 Tidewater Trail, Champlain, VA 22438
Permittee – Authorized Representative Printed Name — Signature — Mailing Address

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION: PART D-VI LAND APPLICATION AGREEMENT

Permittee: Synagro _____ **County or City:** _____

Landowner: _____

Landowner Site Management Requirements:

I, the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, until at least 30 days after land application at that site is completed.

2. Public Access
   a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
   b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
   c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by DEQ.

3. Crop Restrictions:
   a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
   b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
   c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
   d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
   e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy animals).

4. Livestock Access Restrictions:
   Following biosolids application to pasture or hayland sites:
   a. Meat producing livestock shall not be grazed for 30 days,
   b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
   c. Other animals shall be restricted from grazing for 30 days;

5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;

6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on the Landowner's land for three years following the application of biosolids or industrial residuals which bear cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare)

Caroline M. Vaughan _____ 3-12-13
Landowner's Signature Date

Rev 9/14/2012